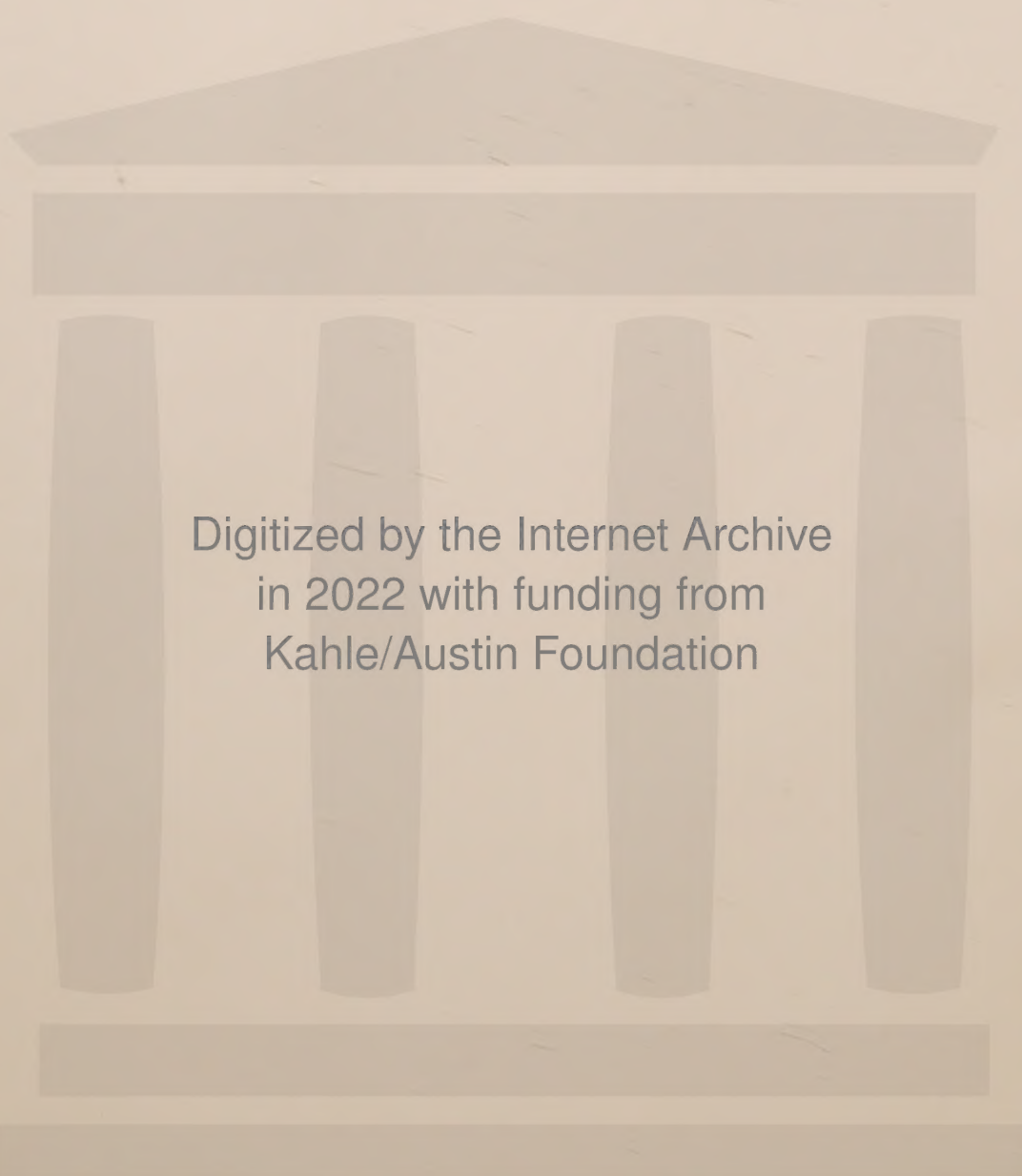




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Oceanic Observations of the Pacific

1955

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CEANIC
OBSERVATIONS
OF THE PACIFIC

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UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES • 1962

OCEANIC OBSERVATIONS OF THE PACIFIC: 1955

SCRIPPS INSTITUTION OF OCEANOGRAPHY OF THE UNIVERSITY OF CALIFORNIA

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Seattle; Eugene C. LaFond, U. S. Navy Electronics
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Group, Nanaimo

The editors suggest that this volume be cited as:

Scripps Institution of Oceanography of the University
of California
1962 Oceanic Observations of the Pacific: 1955.
Berkeley and Los Angeles, University of
California Press



University of California Press
Berkeley and Los Angeles
California

Cambridge University Press
London, England

551.465
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1725

Preface

Oceanic Observations of the Pacific is a medium for publication of oceanographic data collected in the Pacific Ocean and its adjacent seas by the cooperating agencies. At the present time these agencies are Scripps Institution of Oceanography of the University of California, San Diego, California; Biological Laboratory of the Bureau of Commercial Fisheries, Honolulu, Hawaii (formerly Pacific Oceanic Fishery Investigations); Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, California (formerly South Pacific Fishery Investigations); Department of Oceanography of the University of Washington, Seattle, Washington; Pacific Oceanographic Group of the Fisheries Research Board of Canada, Nanaimo, British Columbia; United States Navy Electronics Laboratory, San Diego, California. Certain cruises were carried out jointly as California Cooperative Oceanic Fisheries Investigations (CCOFI). The agencies cooperating in the program are the Scripps Institution, the Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, the California Department of Fish and Game, the Hopkins Marine Station and the California Academy of Sciences.

Agencies, other than the cooperating agencies, who have directly sponsored cruises presented in this volume are Office of Naval Research, United States Atomic Energy Commission, United States Coast and Geodetic Survey and United States Navy Hydrographic Office, all of Washington, D. C. The United States Coast Guard furnished vessels for two cruises. It is hoped that still other agencies engaged in oceanographic studies of the Pacific area will utilize this serial for the publication of data.

The present volume contains those observations made in 1955 that have not been reported already in Oceanic Observations of the Pacific: 1955, the NORPAC Data (University of California Press, 1960), and, in addition, corrected NORPAC data of the Biological Laboratory of the Bureau of Commercial Fisheries, Honolulu, Hawaii. For each oceanographic station, values of temperature, salinity, oxygen or phosphate are tabulated at observed and at standard depths. Computed values of density, specific volume anomaly or thermosteric anomaly, and geopotential anomaly are also tabulated at standard depths. The positions of serial observations are shown on appropriate charts, and information concerning cruises on which the observations were taken is summarized in a table.

66/67-P

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Description of Observations

SIGNIFICANCE OF REPORTED OCEANOGRAPHIC DATA

Routine field measurements of oceanographic parameters by conventional methods are usually subject to at least the following random errors:

temperature	$\pm 0.02^{\circ}\text{C}$
salinity	$\pm 0.03\text{‰}$
depth	$\pm 4\text{ m}$ (in the upper 1000 m)
oxygen	$\pm 0.04\text{ ml/L}$
phosphate	$\pm 0.05 - 0.1\text{ }\mu\text{g at/L}$

A recent analysis of the precision of field measurements of temperature and salinity is that of Wooster and Taft (1958). It should be noted that the above estimate of salinity precision refers to analyses by Knudsen titration. Random errors in measurements by conductivity bridge appear to be less than $\pm 0.01\text{‰}$ (Paquette, 1959).

Interpolated values at standard depths are known with less precision, and the resulting uncertainty in specific volume anomaly and thermosteric anomaly at standard depths due to random errors in field measurements of temperature, salinity and depth is of the order of three cl/ton . Therefore, in this publication series it is the practice to report specific volume anomaly and thermosteric anomaly to no more than one part in 10^5 (one cl/ton) and geopotential anomaly to no more than the nearest dynamic centimeter.

It should be noted also that computations of salinity (from measured chlorinity) and density (sigma-t, specific volume anomaly and thermosteric anomaly) reported in this volume have all been based on the empirical equations and tables by Knudsen (1901) and Ekman (1908). Because of the inadequacy of our present knowledge of the equation of state of sea water (Eckart, 1958) and the uncertainty of the relationship between chlorinity and salinity (Carritt and Carpenter, 1959), it is possible that these computed values differ systematically from the absolute values. However, in the upper thousand meters at least, Reid (1959) has shown that the influence of such systematic errors on the accuracy of computed geostrophic flow is significantly smaller than the influence of errors in the determination of temperature, salinity, pressure and position.

NOTES ON PARTICULAR CRUISES

Eastropic Expedition

SALINITIES: Two vessels of Scripps Institution of Oceanography, R/V Horizon and R/V Spencer F. Baird, participated in Expedition Eastropic. On each ship one man determined salinity by titration. Comparison of temperature-salinity curves from those areas visited essentially simultaneously by the ships indicated between-ship salinity differences, and further comparison with data from recent cruises (Costa Rica

Dome, 1959; STEP-I, 1960) in which salinity was determined by conductivity bridge suggested that the R/V Horizon salinities were too low. The following errors are approximate:

<u>Stations</u>	<u>Too low by</u>
H-1 - H-22	0.07‰
H-23 - H-28	0.04‰
H-29 - H-34	0.08‰
H-35 - H-59	0.02‰
H-60 - H-97	0.05‰

These are suggested average errors; there is as well considerable variability from station to station, and for this reason the data are published as originally listed, with no correction made.

Cruise Data Reported by the Bureau of Commercial Fisheries, Biological Laboratory, Honolulu

The three cruises of the R/V Hugh M. Smith presented in this volume have been corrected for an error in depth calculation reported by Thomas S. Austin. (These errors had been made in the calculation of all data of the R/V Hugh M. Smith and R/V Charles H. Gilbert reported in Special Scientific Reports, U. S. Fish and Wildlife Service, Fisheries Nos. 164, 168, 180, 201, 217, 238, 252, 315 and 358.) The data of R/V Hugh M. Smith published in Oceanic Observations of the Pacific: 1955, the NORPAC Data (pp. 227-256) with erroneous depth calculations are republished herein with corrected depth determinations and recalculated geopotential anomalies. The recalculations of these NORPAC data and the 1955 data were made through the facilities of the IGY World Data Center A, Oceanographic Archive, Agricultural and Mechanical College of Texas. Interpolation for values at standard depths was performed by a machine program that fitted a parabola to the four observed values surrounding the desired standard depth (two above and two below), to pass through the two inner observed values and to be a least-squares fit to the two outer observed values.

USCGS Explorer, USCGC Northwind, USS Burton Island and USS Staten Island

Interpolation for values at standard depths and determination of calculated depths were carried out by machine programs at the U. S. Navy Hydrographic Office, Washington, D. C. Interpolations were made by the three-point Lagrange method (U. S. N. Hydrogr. Off., 1960).

Cruises BB-80, BB-108, JNC-23 and MIT-2

Interpolation for values at standard depths and determination of calculated depths were done by machine programming at the Department of Oceanography of the University of Washington. Interpolations were made by the three-point Lagrange method.

Cruise	Vessel	Dates of obs	Number and depths of hydrographic stations				Total	T and S obs at 10 m
			0-500 m	500-1000 m	1000-2000 m	>2000 m		
CCOFI								
5501	Crest ^a	13-29 i	0	0	0	0	0	73
	Paolina-T	21-28 i	0	0	0	0	0	39
5502	Crest	11-19 ii	15	22	8	0	45	0
	Paolina-T	12-18 ii	13	12	3	0	28	0
	Spencer F. Baird	13-23 ii	21	20	9	0	50	0
5503	Black Douglas	9-17 iii	0	0	0	0	0	33
	Crest	9-20 iii	0	0	0	0	0	51
	Horizon	11-21 iii	0	0	0	0	0	57
5504	Crest	7-22 iv	15	31	7	0	53	0
	Horizon	6-19 iv	23	37	13	0	73	0
	Spencer F. Baird	17-22 iv	0	1	1	0	2	0
5505	Black Douglas	19 v-7 vi	0	0	0	0	0	102
	Crest	19 v-1 vi	0	0	0	0	0	85
	Horizon Spencer F. Baird	12 v 18 v	0 0	0 0	1 1	0 0	1 1	0 0
5506	Crest	11-27 vi	9	17	8	7	41	14
	Horizon	12-28 vi	18	26	11	10	65	33
	Paolina-T	17-23 vi	5	11	2	0	18	18
	Spencer F. Baird	12-17 vi	0	0	0	0	0	0
5507	Black Douglas	9-23 vii	0	0	0	0	0	78
	Crest	8-15 vii	0	0	0	0	0	44
	Paolina-T	8-20 vii	0	0	0	0	0	74
5509	Black Douglas	15-25 ix	22	0	0	0	22	65

INFORMATION

No. of BT obs	O ₂	PO ₄ -P	Depth determination			Surface T underway	Plankton tows	Surface currents	Other measurements and observations
			Usual No. Nansen btls	No. P therms/btl	Btls w/U therms				
344	0	0	1	1	0	-	74 ^b	98 GEK	Phytoplankton samples
89	0	0	1	1	0	thermograph	39 ^b	23 GEK	Phytoplankton samples
158	44	0	16	2	10	thermograph	44 ^b	50 GEK, drift btls at 14 stas	10-m phyto. samples
121	0	0	16	2	9	thermograph	27 ^b	± 275 drift btls released (12/inshore stas)	10-m phyto. samples
309	48	0	16	2	10	-	48 ^b	60 GEK	Phyto. samples; T convergence study by thermitow
130	0	0	1	2	0	-	33 ^b	30 GEK, 343 drift btls released (12/inshore stas)	Plankton tows for sardine eggs and larvae at 7 stas; 10 10-m phyto. samples
236	0	0	1	2	0	thermograph	51 ^b	71 GEK, 12 drift btls released from 22 stas	Phyto. samples at 13 stas
224	0	0	1	2	0	-	58 ^b	37 GEK	Phyto. samples
232	53	0	16	11 w/2 5 w/1	8	thermograph	53 ^b	105 GEK, drift btls released from 35 inshore stas	10-m phyto. samples at 18 stas
234	68	0	16	12 w/2 4 w/1	8	-	73 ^b	81 GEK	Phyto. samples
66	0	0	15	10 w/2 5 w/1	4	-	0	84 GEK	-
172	0	0	1	2	0	-	102 ^b	59 GEK, drift btls released from 36 inshore stas	5 10-m phyto. samples
183	0	0	1	2	0	thermograph	85 ^b	99 GEK, 12 drift btls released from 12 stas	Phyto. samples
36	1	0	11	2	5	-	0	15 GEK	-
71	0	0	12	2	6	-	0	129 GEK	-
158	40	0	16	2	10	thermograph	42 ^b	83 GEK, drift btls released from 30 inshore stas	11 10-m phyto. samples
195	60	0	16	2	9	thermograph	33 ^b	112 GEK	Phyto. samples
43	3	0	16	2	8	thermograph	18 ^b	-	9 10-m phyto. samples
49	0	0	0	0	0	-	0	58 GEK	Phyto. samples
5	0	0	1	2	0	-	79 ^b	91 GEK	Phyto. samples
153	0	0	1	2	0	thermograph	44 ^b	12 drift btls released from various stas	Phyto. samples at 6 stas
106	0	0	1	2	0	thermograph	74 ^b	29 GEK, drift btls released from 26 stas	Phyto. samples at 21 stas
172	0	0	3 ^c	1 w/2 2 w/1 ^c	2 ^c	thermograph	86 ^b	-	22 vertical micro- plankton hauls to 50 m; 65 10-m phyto. hauls at all stas

Cruise	Vessel	Dates of obs	Number and depths of hydrographic stations				Total	T and S obs at 10 m
			0-500 m	500-1000 m	1000-2000 m	>2000 m		
5509 (cont.)	Paolina-T	12-23 ix	21	0	0	0	21	62
5510	Black Douglas	16-30 x	18	20	15	0	53	0
	Stranger	16-28 x	23	16	17	0	56	0
5511	Black Douglas	9-13 xi	3	0	0	0	3	38
	Paolina-T	9-14, 16-20 xi	22	0	0	0	22	62
5512	Black Douglas	6-15 xii	24	14	4	0	42	0
	Stranger	30 xi-15 xii	16	32	15	0	63	0
<u>SIO/AEC/ONR/USCG</u>								
Operation Troll	USCGC Roger B. Taney	10 iii-13 iv	6	39	2	0	47	0
<u>SIO</u>								
Eastropic Expedition	Spencer F. Baird	2 x-13 xii	7	12	67	5	91	0
	Horizon	3 x-15 xii	8	10	76	2	96	0

No. of BT obs	O ₂	PO ₄ -P	Depth determination			Surface T underway	Plankton tows	Surface currents	Other measurements and observations
			Usual No. Nansen btl	No. P therms/btl	Btls w/U therms				
219	0	0	2 ^d	2 ^d	2 ^d	thermograph	83 ^b	6 drift btls released from each sta	Vertical phyto. haul and 10-m sample at 20 stas
162	53	0	16	12 w/2 4 w/1	9	thermograph	53 ^b	80 GEK, 12 drift btls released from 13 inshore stas	-
167	56	0	16	13 w/2 3 w/1	8	thermograph	56 ^b	111 GEK	-
141	0	0	3 ^c	2 ^c	2 ^c	thermograph	76 ^b	12 drift btls released from 41 stas	35 vertical micro- plankton hauls
99	0	0	3 ^c	2 ^c	2 ^c	thermograph	84 ^b	12 drift btls released from 40 stas	-
136	52	0	16	11 w/2 5 w/1	8	thermograph	42 ^b	-	-
199	42	0	14	12 w/2 2 w/1	8	thermograph	63 ^b	125 GEK, 240 drift btls released from 20 stas	-
669 ^e	0	0	12	1-2 ^f	7-12	thermograph	48 ^g	-	Fish collections and 23 microplankton samples for radio- chemical analysis; continuous monitor- ing of radioactivity in sea water by scintillation probe
581	83	71 ^h	19	2	11	thermograph	78 ⁱ	217 GEK	Determination of chlorophyll a: sur- face samples on sta and underway, sub- surface samples on sta by Van Dorn plastic sampler; measurements of zooplankton standing crop; measurements of carbon fixation by phyto.
740	92	82 ^j	19	2	11	thermograph	88 ⁱ	671 GEK	Determination of chlorophyll a: sur- face samples on sta and underway, sub- surface samples on sta by Van Dorn plastic sampler; measurements of zooplankton standing crop; measurements of carbon fixation by phyto.

Cruise	Vessel	Dates of obs	Number and depths of hydrographic stations				Total	T and S obs at 10 m
			0-500 m	500-1000 m	1000-2000 m	>2000 m		
<u>HBL</u>								
HMS-27	Hugh M. Smith	6 i-21 ii	0	2	47	0	49	0
HMS-31	Hugh M. Smith	28 x-23 xi	1	12	22	0	35	0
<u>USCGS</u>								
	USCGSS Explorer	19 v-10 ix	0	0	3	0	3	0
<u>USHO/USCG</u>								
	USCGC Northwind	6 iii-18 iv	51	0	0	0	51	0
<u>USHO</u>								
	USS Burton Island	21 iv-27 v	23	1	1	3	28	0
	USS Staten Island	19-20 ix	2	0	0	0	2	0

No. of BT obs	O ₂	PO ₄ -P	Depth determination			Surface T underway	Plankton tows	Surface currents	Other measurements and observations
			Usual No. Nansen btl	No. P therms/btl	Btls w/U therms				
198 ^k	49	49	13	2	5 ^l	thermograph	48 ^m	-	26 collections with 6- and 10-ft Isaacs-Kidd midwater trawls; fishing surveys (albacore trolling and bait); 10 surface water samples for S and PO ₄ -P (obtained at every second BT obs between 32°30'N, 170°30'E and Midway Island
746 ⁿ	35	35 ^o	13	2	5 ^l	thermograph from Manzanillo to Honolulu	487 ^p	48 GEK	53 1-hr collections with 10-ft Isaacs-Kidd midwater trawl; 1 pelagic trawl haul; 44 chlorophyll determinations; 76 measurements of carbon fixation; scattering-layer obs by EDO depth sounder; surface trolling; surface water samples collected twice daily for S and PO ₄ -P on the eastbound leg, and on the westbound leg on runs without full hydrographic stas
93 ^q	2	0	8	1	8	injection T with each BT	0	-	Transparency reading by Secchi disc at Sta E-4
269	49	0	4-8 ^r	2	1-3 ^s	-	0	-	33 bottom samples using Dietz-LaFond sampler; 8 transparency measurements; ice obs; continuous sonic soundings while underway
210	0	0	5-10 ^t	2	1-7 ^u	-	0	-	22 bottom samples using Dietz-LaFond sampler; 17 transparency measurements; ice obs at 6-hr intervals
14	0	0	6	1	0	49	0	-	4 cores in the Beaufort Sea using Phleger corer; ship-board ice obs

Cruise	Vessel	Dates of obs	Number and depths of hydrographic stations				Total	T and S obs at 10 m
			0-500 m	500-1000 m	1000-2000 m	>2000 m		
<u>UW</u>								
BB-80	Brown Bear	5 i	0	1	1	1	3	0
BB-108	Brown Bear	14 vi-2 vii	18	1	3	21	43	0
JNC-23	John N. Cobb	6 vii-12 ix	4	40	0	0	44	0
PAR	Paragon	12 viii-20 ix	0	26	0	0	26	0
MIT-2	Mitkof	17-23 x	4	0	1	0	5	0

General Methods

Unless otherwise indicated, subsurface temperature by paired protected reversing thermometers; salinity by Knudsen method; dissolved oxygen by Winkler method aboard ship, nominal accuracy ± 0.04 ml/L; inorganic phosphate analyses by the molybdenum-blue method (Wooster and Rakestraw, 1951).

Specific information on accuracy when available is indicated by footnotes. Absence of such information does not necessarily imply that the nominal accuracies have been achieved.

- a CCOFI thermometer calibrations indicate the temperature accuracy is 0.02°C ; field tests indicate salinity accuracy of $\pm 0.025\text{‰}$ (root mean square).
- b Oblique plankton tow to approximately 140 m (200 m of wire out, or less in shallow water) taken with a 30XXX net, 1.0 m in diameter at mouth by approximately 5 m in over-all length.
- c On hydrographic casts (on net-tow stations, one Nansen bottle with two protected thermometers and no unprotected thermometers).
- d On hydrographic casts (on net-tow stations, one Nansen bottle with one protected thermometer and no unprotected thermometers).
- e At hourly intervals (approximately 15 mi apart).
- f Paired protected thermometers: Sta 1, btls 2-12; Stas 2-12, btls 4-12; Stas 13-46, btls 5-12.
- g Oblique plankton tow to approximately 200 m (300 m of wire out).
- h Inorganic phosphate by Beckman DU Photometer (25 stations) and Automatic Servo-Operated Photometer (46 stations).
- i Oblique plankton tow to approximately 300 m with 30XXX (forward), 56XXX (rear section and cod-end) net, 1.0 m in diameter at mouth with Atlas flowmeter mounted in mouth.
- j Inorganic phosphate by Automatic Servo-Operated Photometer.
- k On station and at approximately 30-mi intervals between stations.
- l Btls 5, 7, 9, 11 and 13.
- m Oblique plankton hauls, 30-minute, 0-100 m with 1-m net of 30XXX silk grit gauze.
- n On station and at 2-hr intervals between stations.
- o Inorganic phosphate aboard ship (and ashore from frozen samples after Sta 75), using a modification of the molybdenum method with the Automatic Servo-Operated Photometer, ASOP (Snodgrass et al., 1954), nominal accuracy ± 0.05 to ± 0.10 $\mu\text{g at/L}$.

No. of T obs	O ₂	PO ₄ -P	Depth determination			Surface T underway	Plankton tows	Surface currents	Other measurements and observations
			Usual No. Nansen btl	No. P therms/btl	Btls w/U therms				
10	3 ^v	2 ^w	16	2	10 ^x	7	0	-	Silicate, boron, nickel and suspended material from water samples; phyto. samples; 10 inshore hydrographic stas
89	43 ^v	43 ^y	13	26	6 ^x	146	20 ^z	-	54 gravity cores; 15 bottom samples by various geological sampling devices; albacore trolling
127 ^{aa}	44 ^v	44 ^{bb}	8	12	4 ^x	83	11 ^{cc}	-	Half-meter net vertical sampling, 200 m; gill netting
95 ^{aa}	0	0	4	8	0	69	100 ^{dd}	-	Phyto. (0 and 50 m); half-meter net vertical sampling, 200 and 400 m; gill netting
7 ^{aa}	0	0	5	10	1 ^x	2	5 ^{cc}	-	Half-meter net vertical sampling, 200 m

Four types of hauls, all made with 1-m (mouth diameter) nets of 30XXX silk grit gauze (aperture, 0.65 mm in width): (1) 114 closing-net tows with three nets sampling simultaneously at three levels together with (2) 122 single, open-net, oblique hauls to about 200 m; (3) at 16 stations, an additional haul with a closing net sampling obliquely between 200 and 300 m; and (4) 7 20-minute surface hauls taken in conjunction with an oceanographic "front." On the first three types of hauls nets were operating for approximately 30 minutes. Observations mostly in September at about 15-mi intervals on a track across the Gulf of Alaska.

Casts of less than 50 m, 4; 50-100 m, 5; 100-200 m, 6; over 200 m, 8.

Sta 34, btls 6-7; 35, 39 and 44, btls 6-8; 38, btls 5-8; 37, 40-43, btl 6.

Casts of less than 100 m, 5; 100-200 m, 7; over 200 m, 10 on first cast and 7 on second cast.

Sta 6, btls 7, 9-12, 14, 16; 7, btls 7, 9-11; 8 and 10, btls 7, 9, 10, 12, 14, 15, 17; 9, btls 7, 9, 11, 12, 14, 15; 11, btl 7.

Dissolved oxygen by modified Winkler method described by Thompson and Robinson (1939).

Soluble inorganic phosphate by the method of Robinson and Thompson (1948) except that the color intensity was measured by a Beckman Spectrophotometer Model DU (Gary and Beckman, 1941) rather than by Nessler tubes.

On deep stations.

Soluble inorganic phosphate by the method of Robinson and Thompson (1948), using a Beckman Spectrophotometer Model DU.

Oblique plankton hauls, 200 m or more to surface, using Clarke-Bumpus sampler.

At intervals of approximately 20 mi on the 60-mi sections and 30 mi on the 100-mi sections.

Soluble inorganic phosphate by the method of Robinson and Thompson (1948), using the Electric-Eye Photometer (EEP).

Vertical plankton hauls twice daily, half-meter net, No. 6 mesh nylon, 400 m to surface.

Vertical plankton hauls twice daily, half-meter net, No. 6 mesh nylon, 200 m and 400 m to surface.

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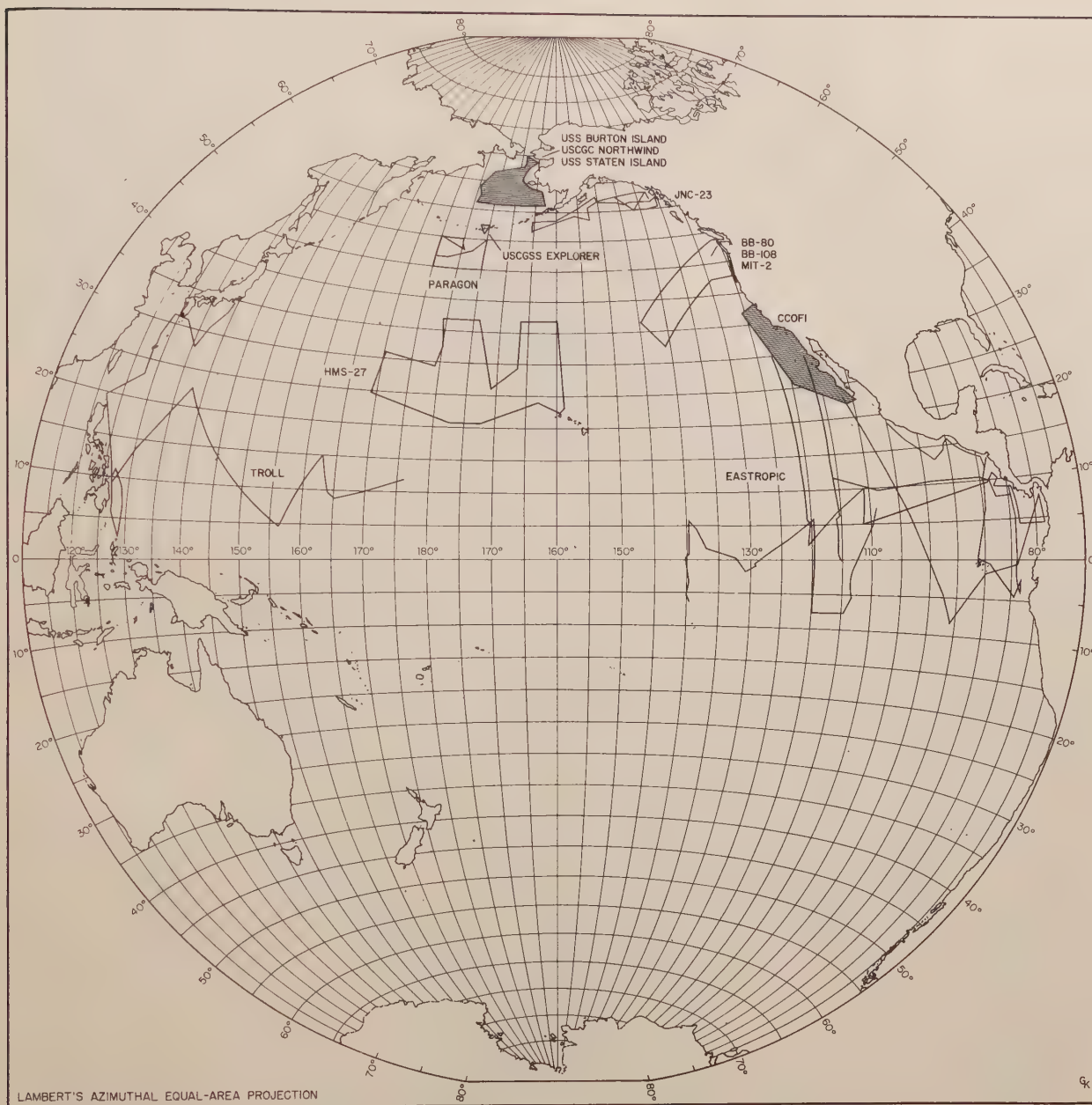


CHART 1. General location chart

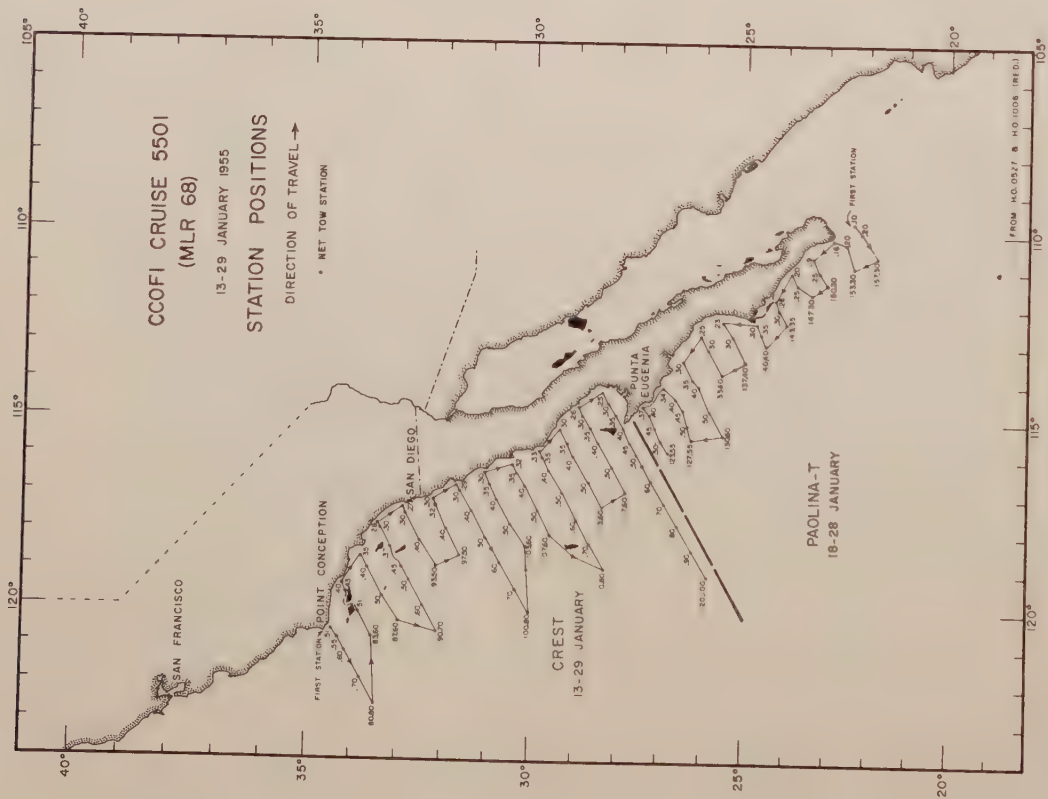


CHART 2. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5501

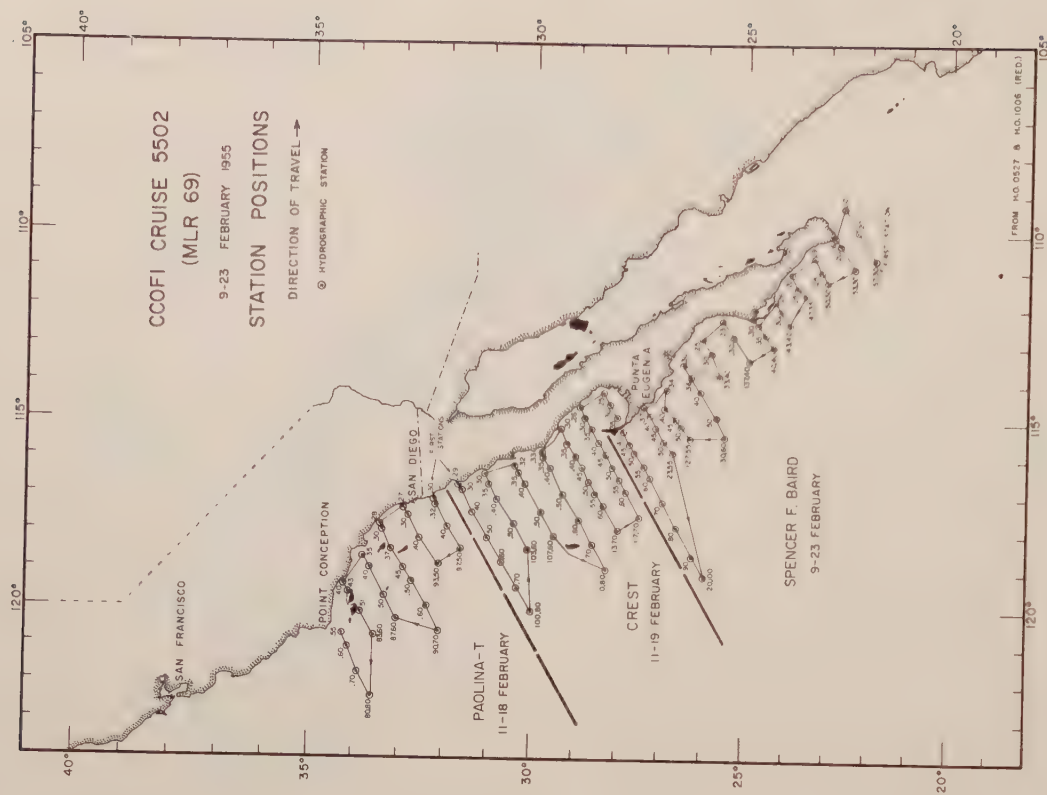


CHART 3. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5502

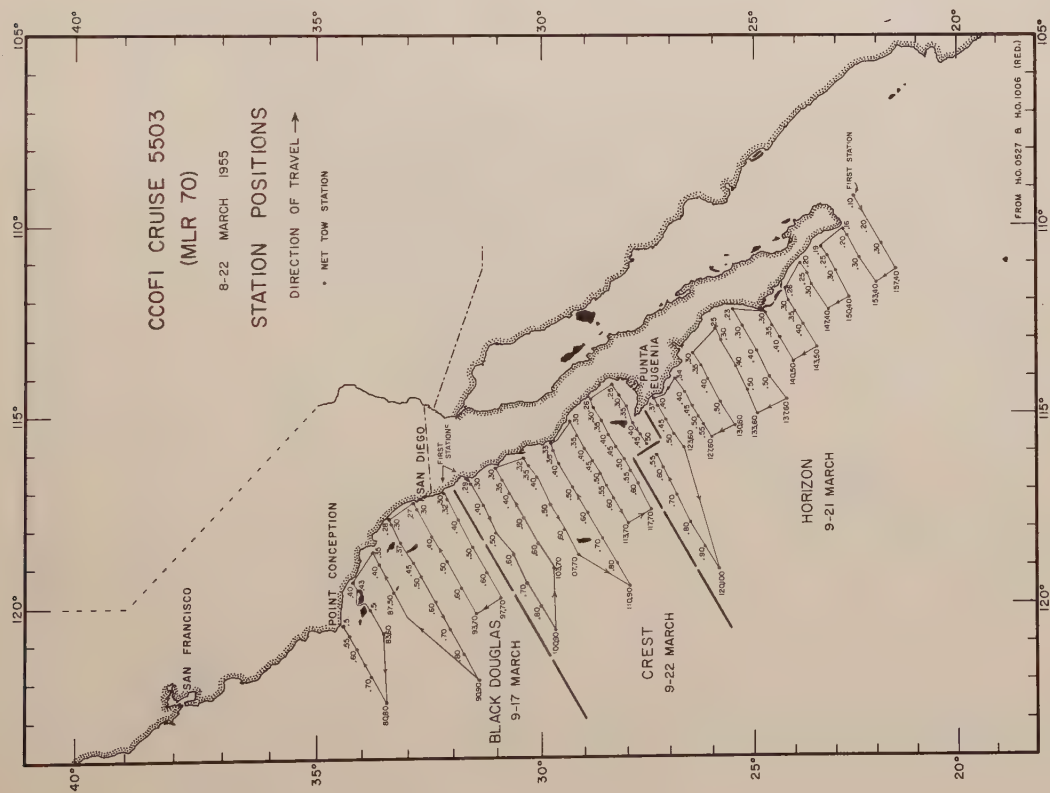


CHART 4. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5503

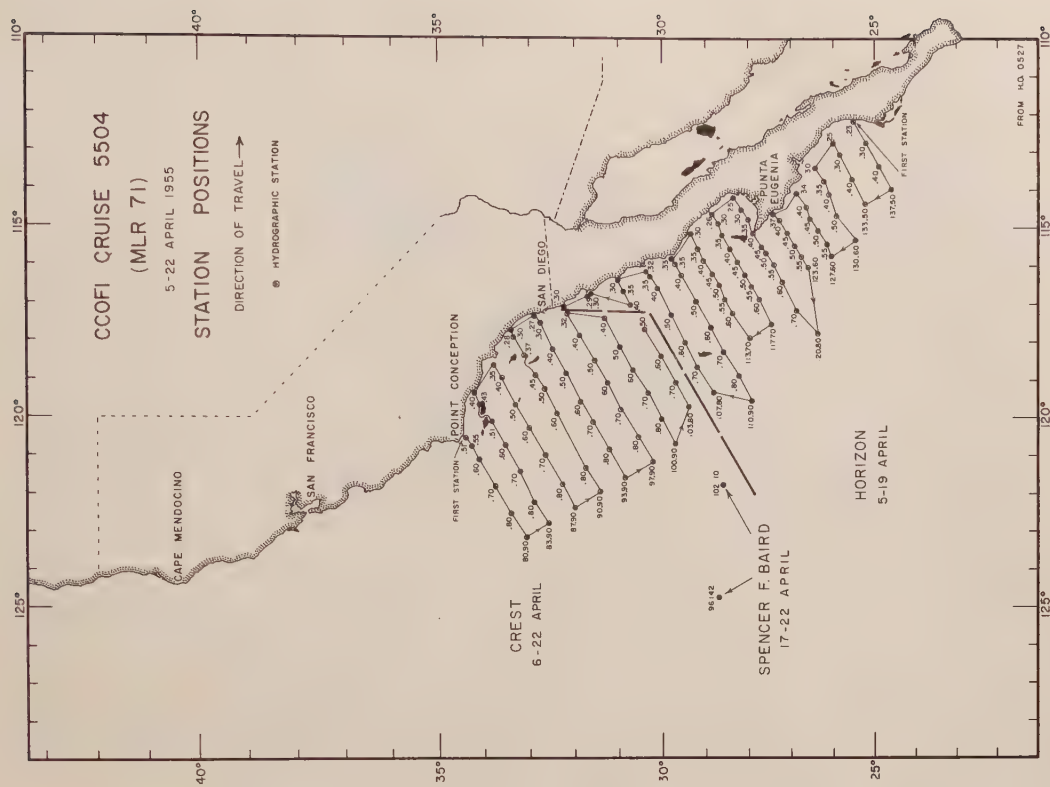


CHART 5. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5504

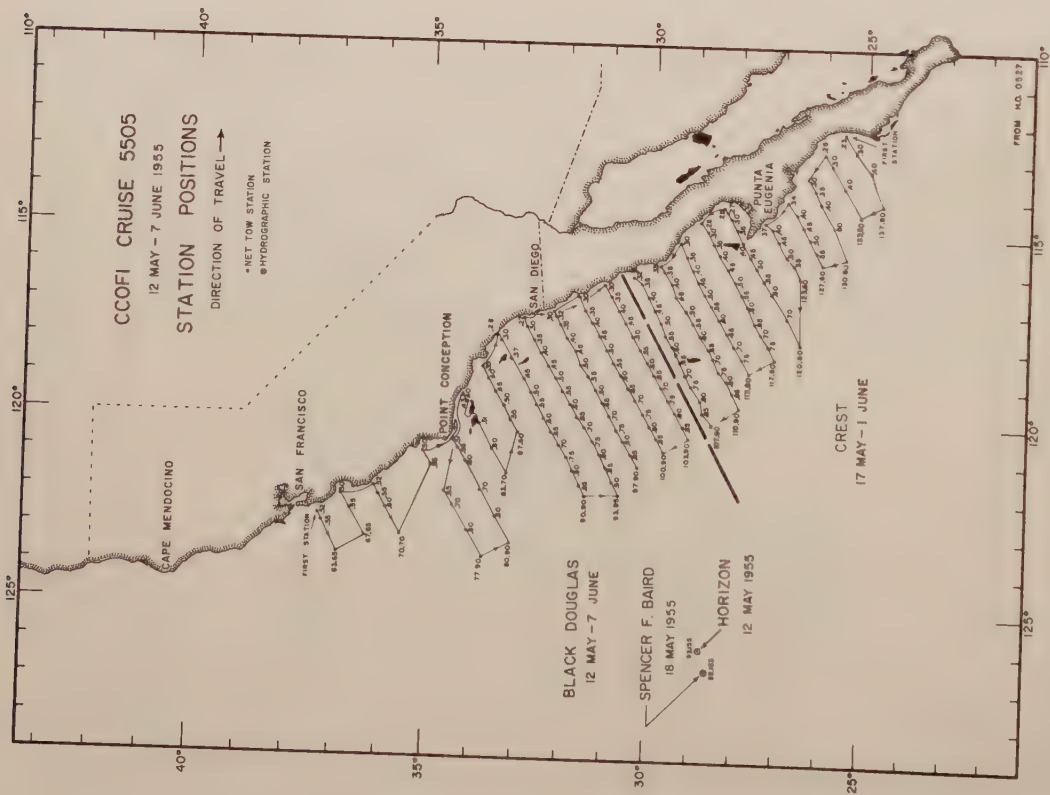


CHART 6. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5505

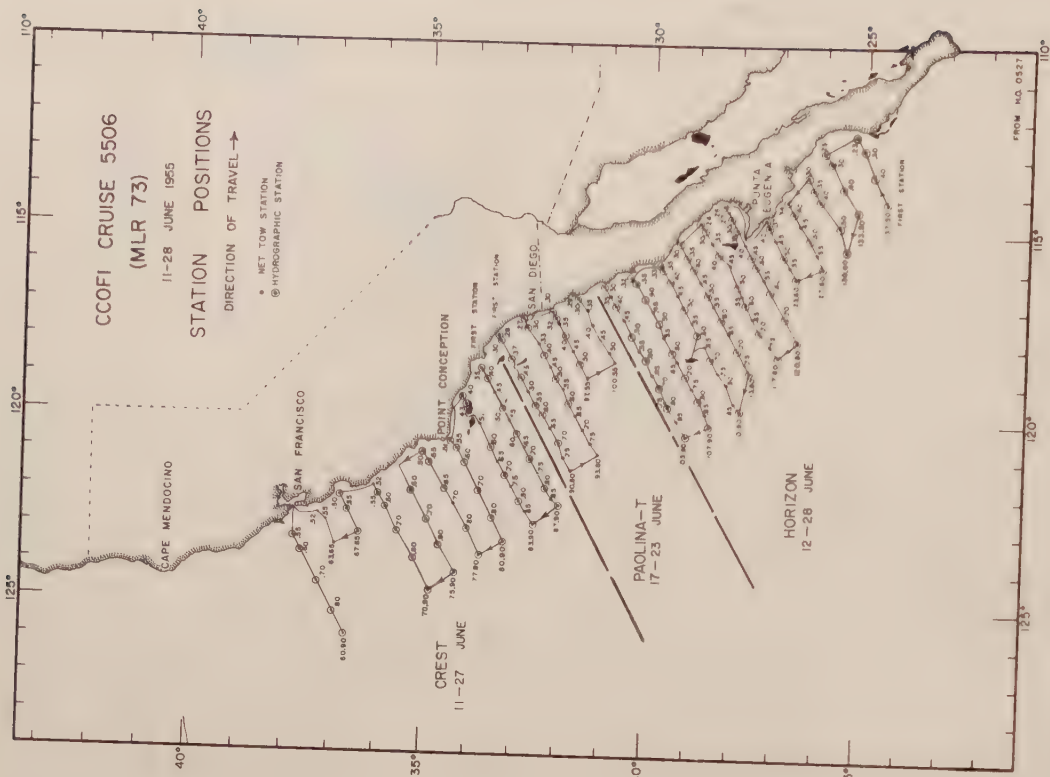


CHART 7. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5506

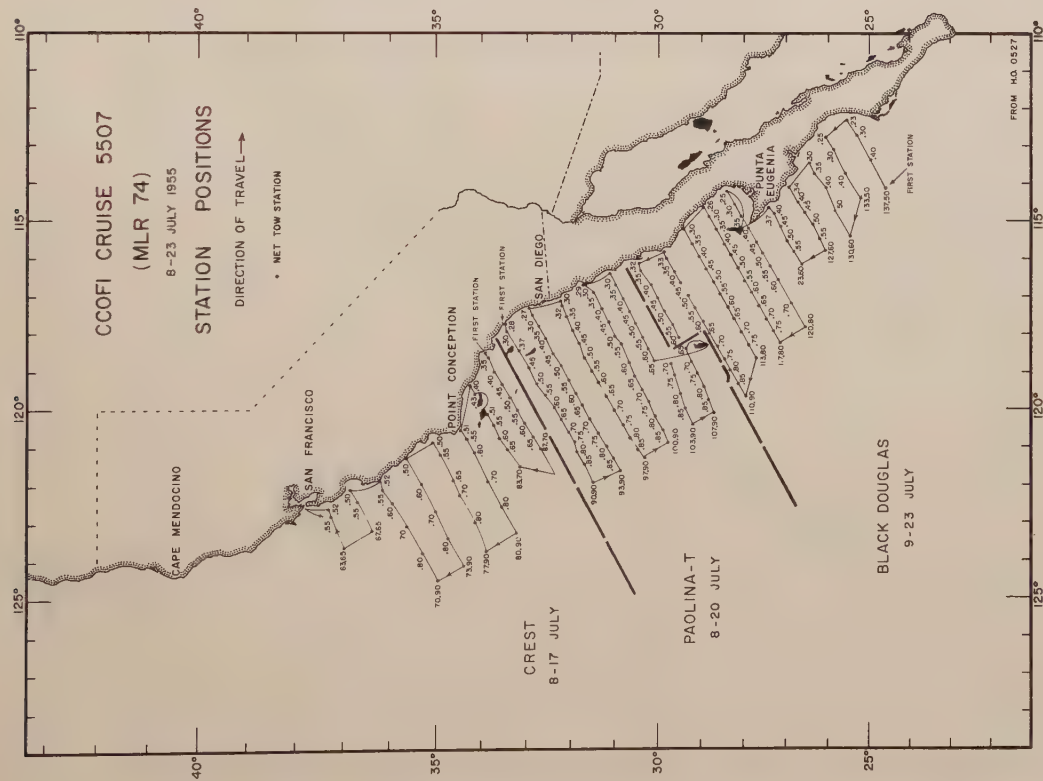


CHART 8. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5507

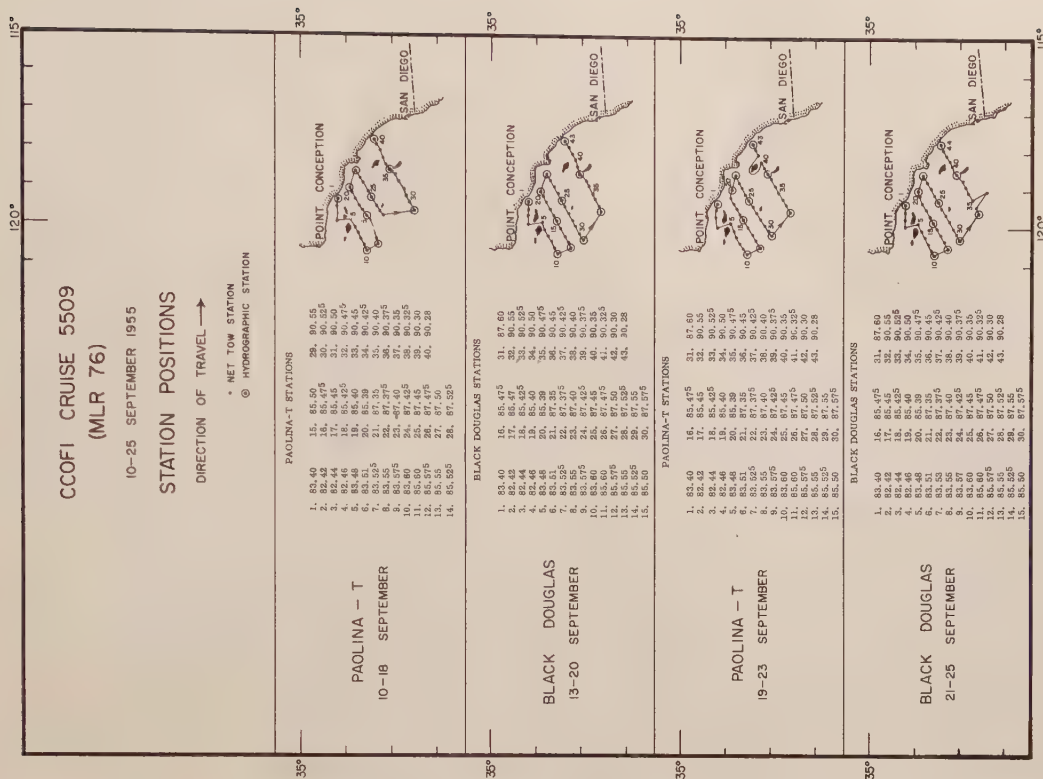


CHART 9. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5509

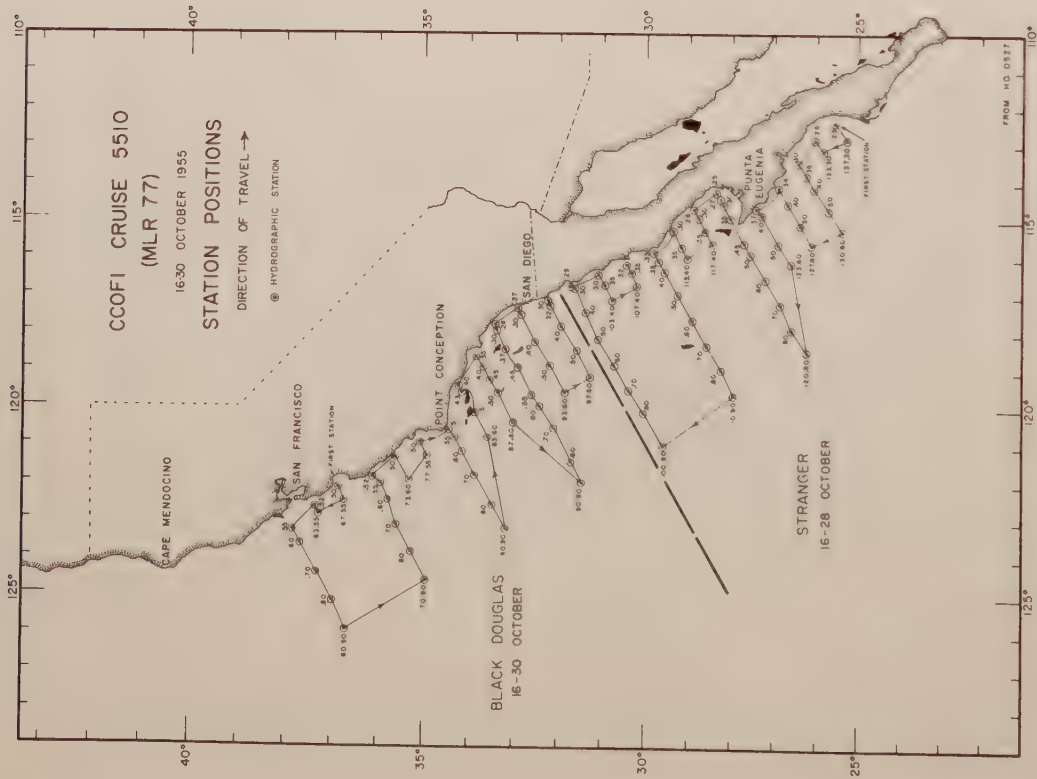


CHART 10. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5510

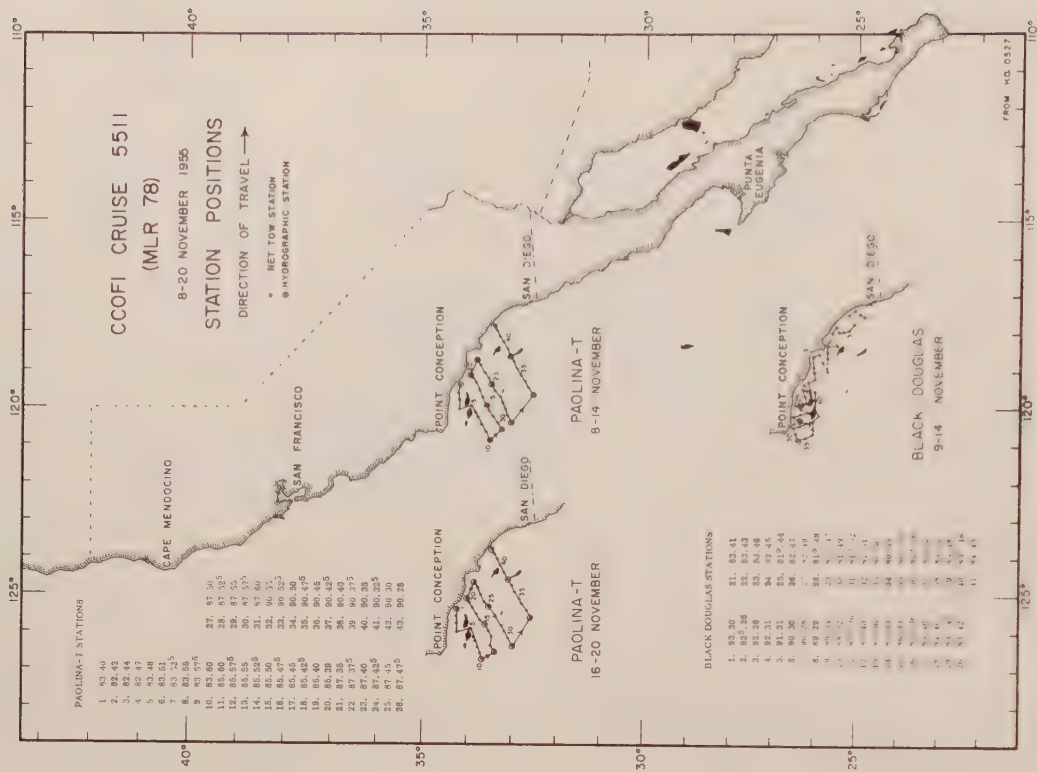


CHART 11. Station positions, California Cooperative Oceanic Fisheries Investigations, Cruise 5511

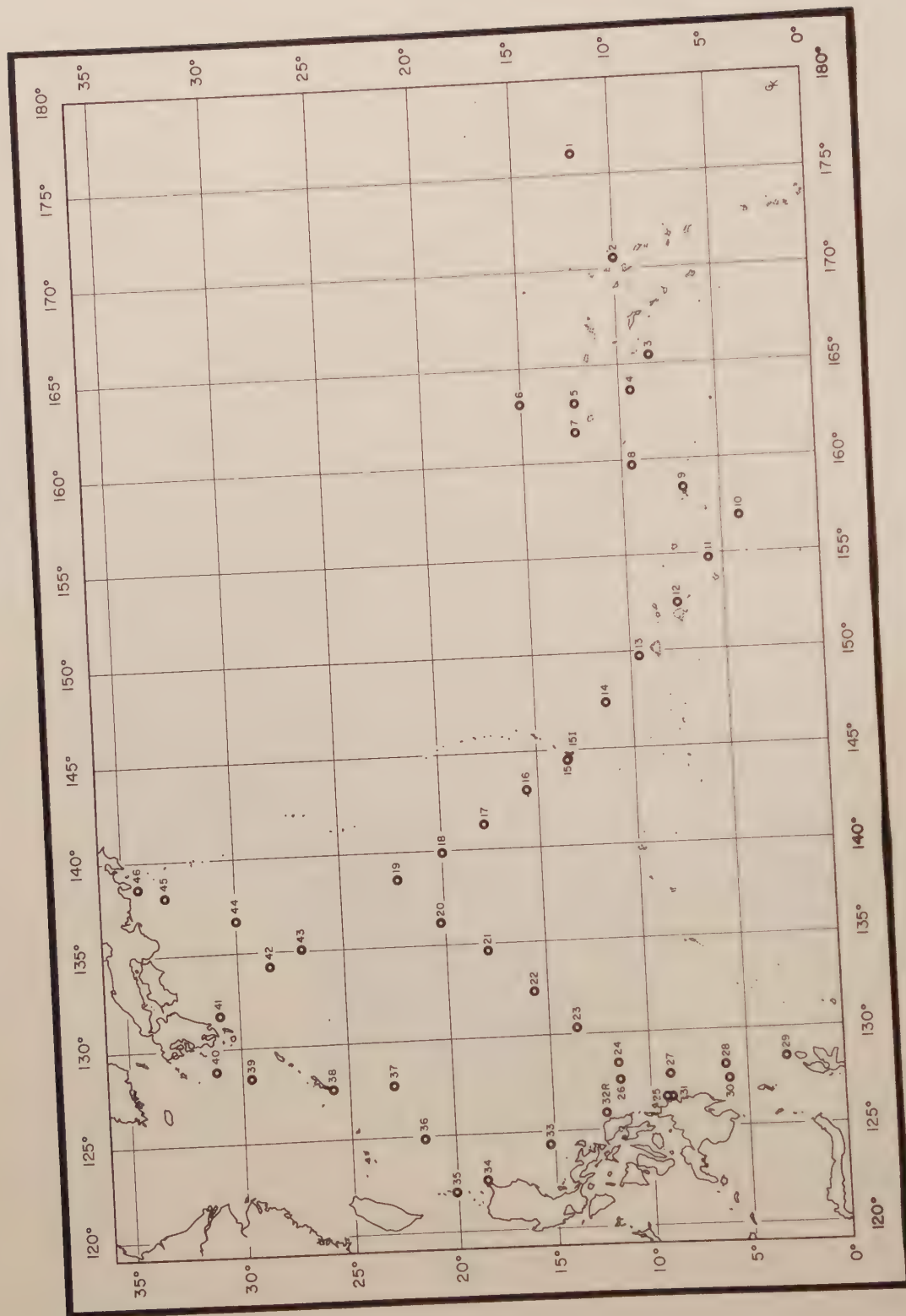


CHART 13. Station positions, Scripps Institution of Oceanography, by the USCGC Roger B. Taney on Operation Troll

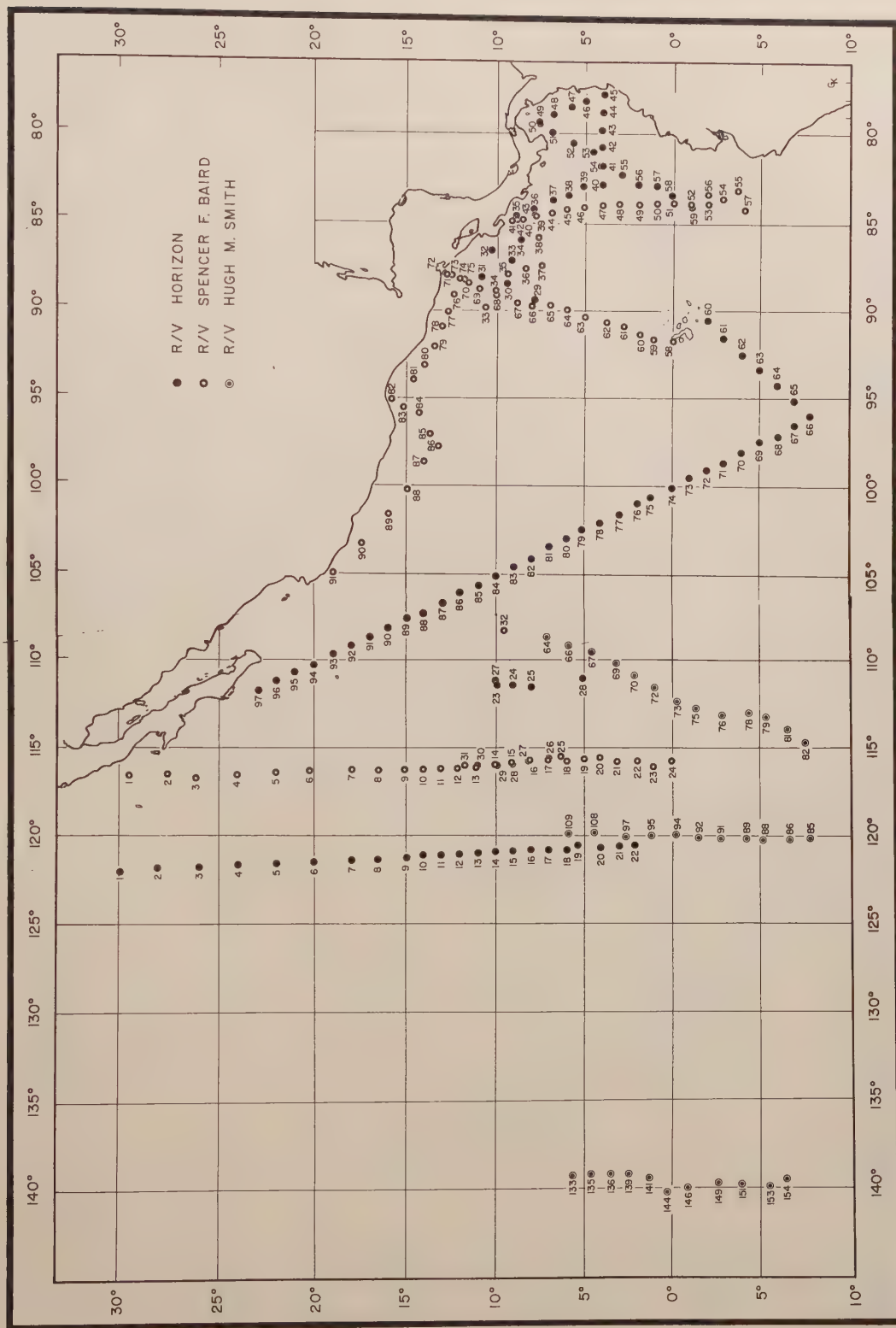


CHART 14. Station positions, Scripps Institution of Oceanography and Bureau of Commercial Fisheries, Honolulu, by the R/V Spencer F. Baird, the R/V Horizon and the R/V Hugh M. Smith on Eastropic Expedition

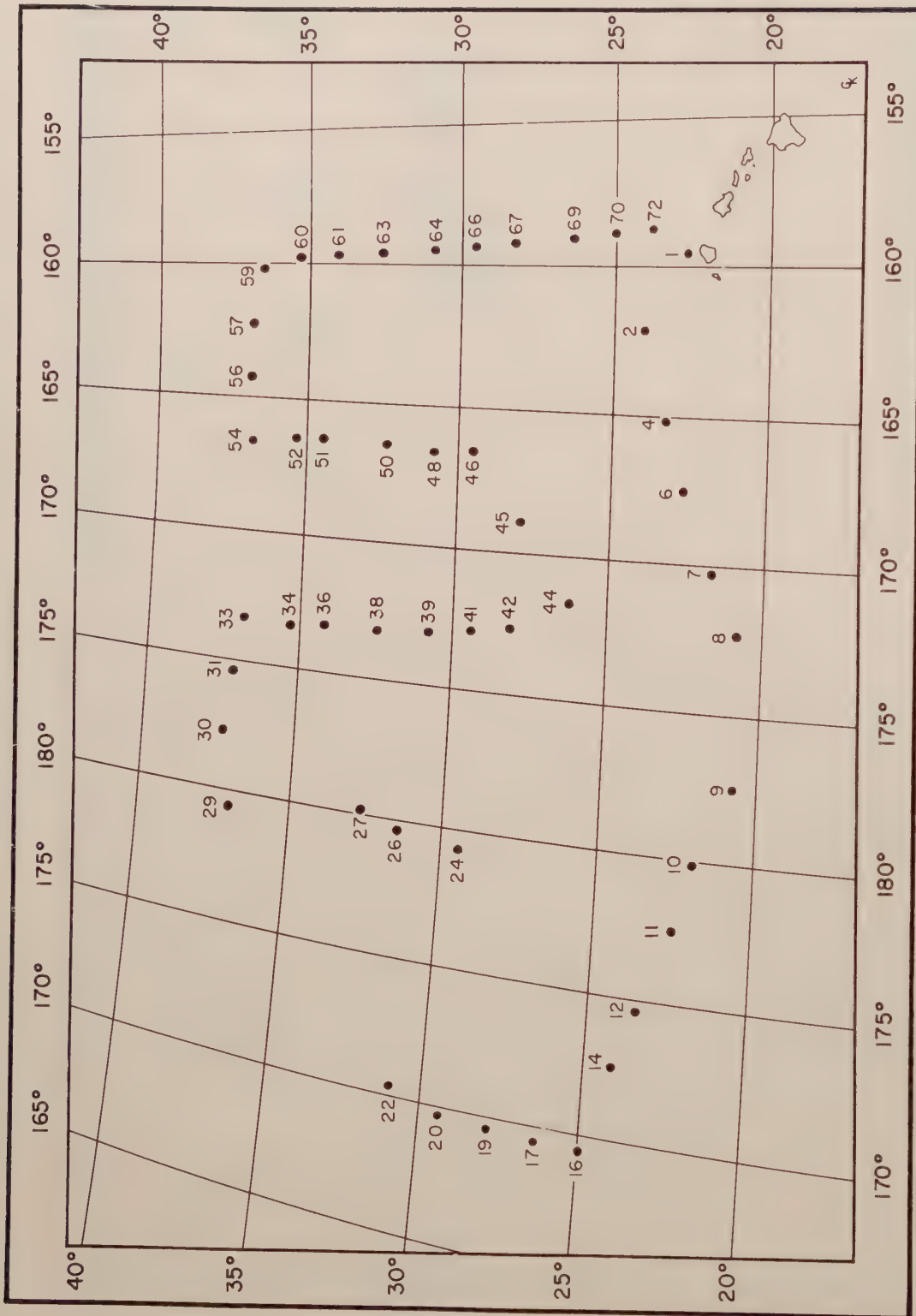


CHART 15. Station positions, Bureau of Commercial Fisheries, Honolulu, by the R/V Hugh M. Smith on Cruise 27

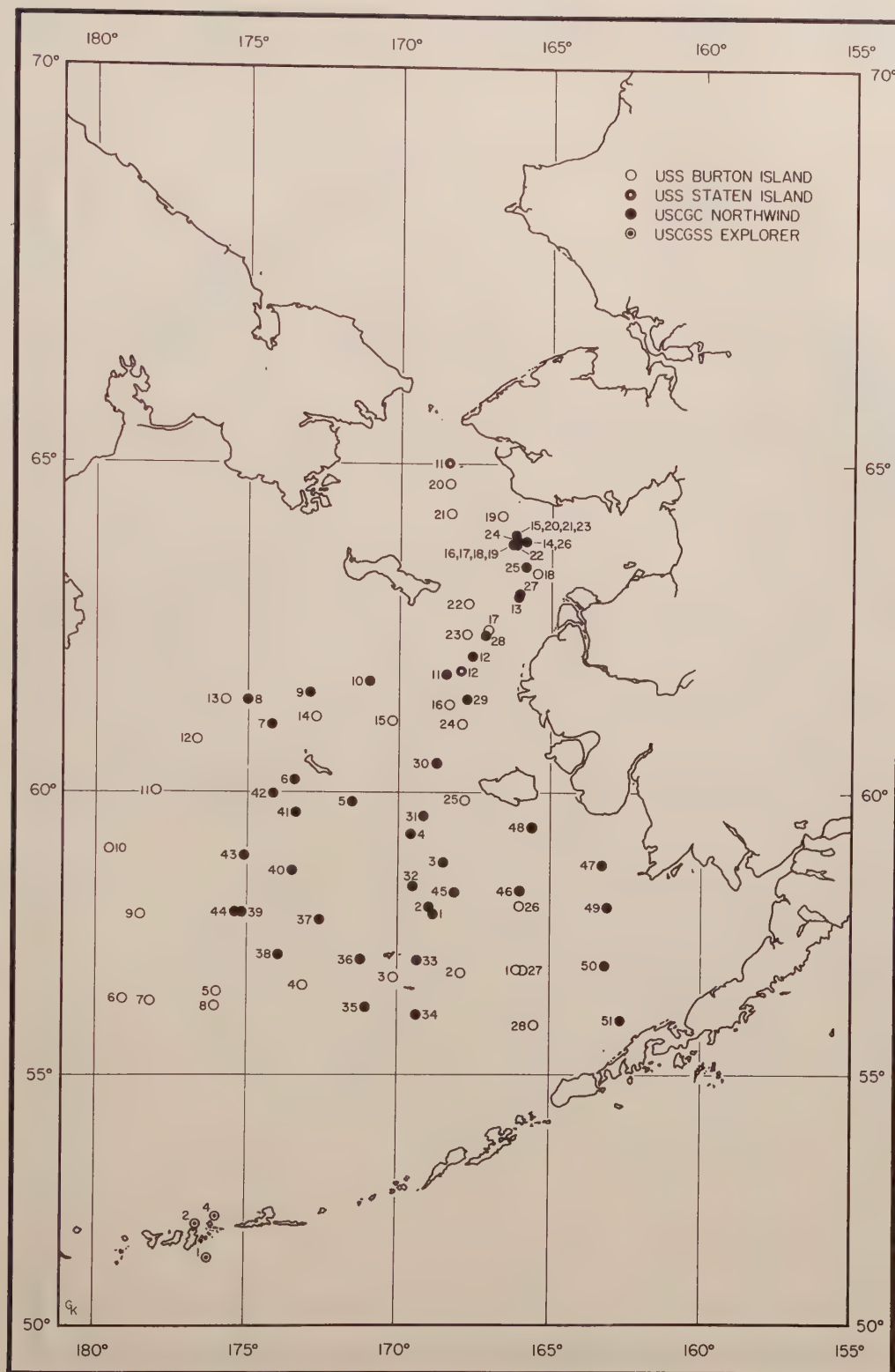


CHART 16. Station positions, U. S. Navy Hydrographic Office, by the USCGC Northwind, the USS Burton Island and the USS Staten Island, and U. S. Coast and Geodetic Survey, by the USCGSS Explorer

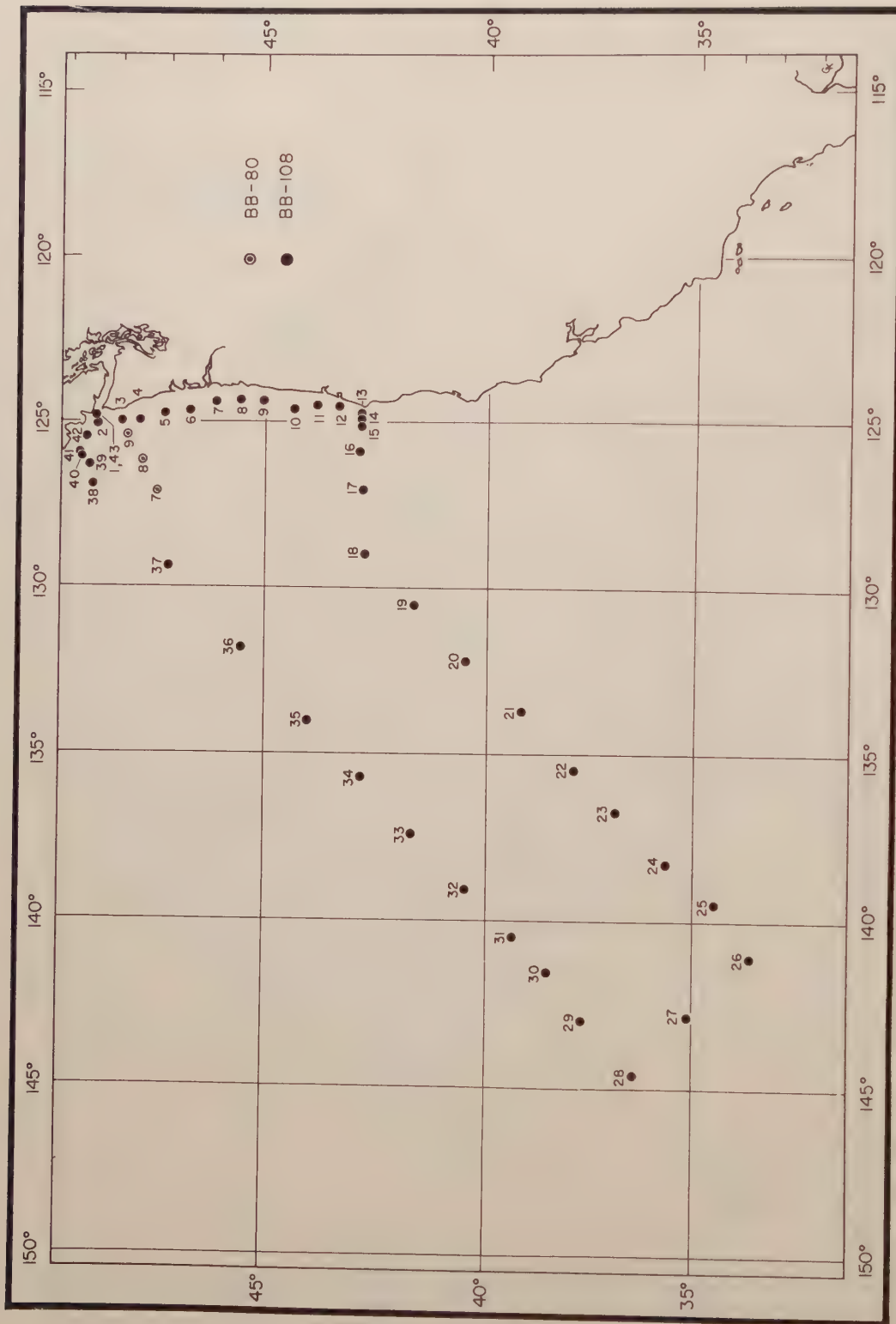


CHART 17. Station positions, University of Washington, by the R/V Brown Bear on Cruises 80 and 108

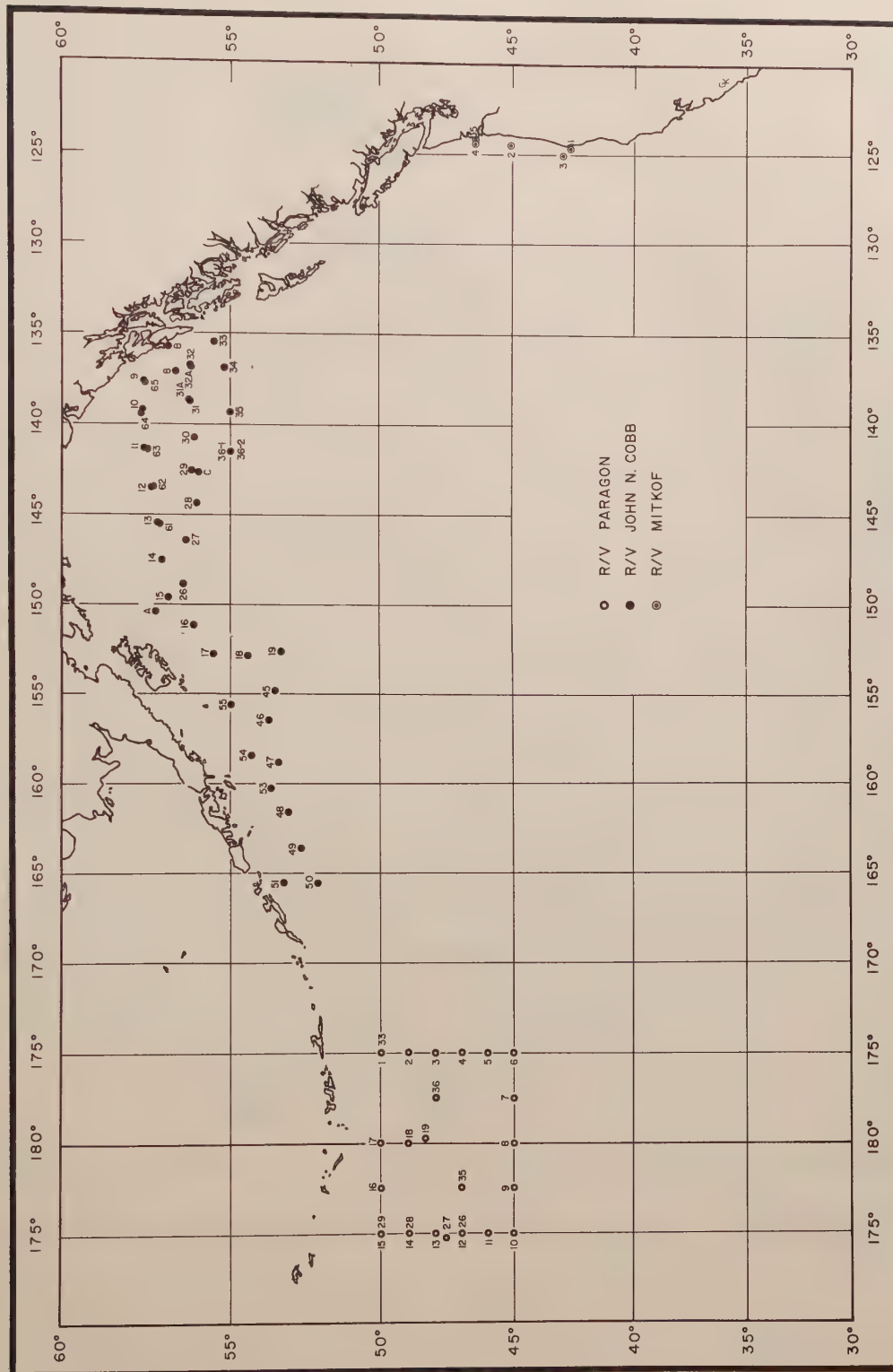


CHART 18. Station positions, University of Washington and U. S. Fish and Wildlife Service, by the R/V John N. Cobb on Cruise 23, the R/V Mitkof on Cruise 2 and the R/V Paragon

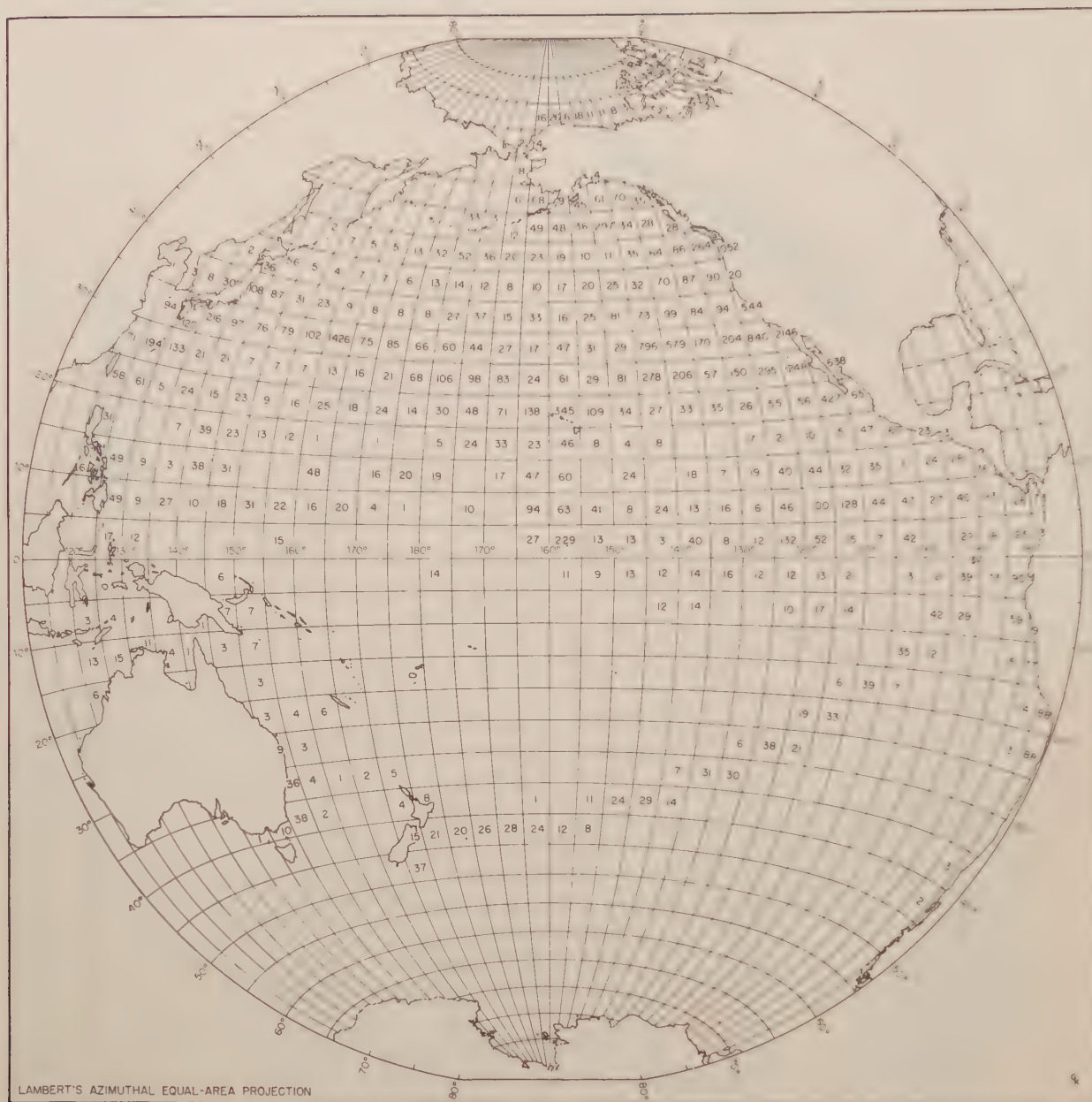


CHART 19. Bathythermograph observations, North and South Pacific, 1955; total, 22,859 (excluding 285 observations for which grids are unavailable)

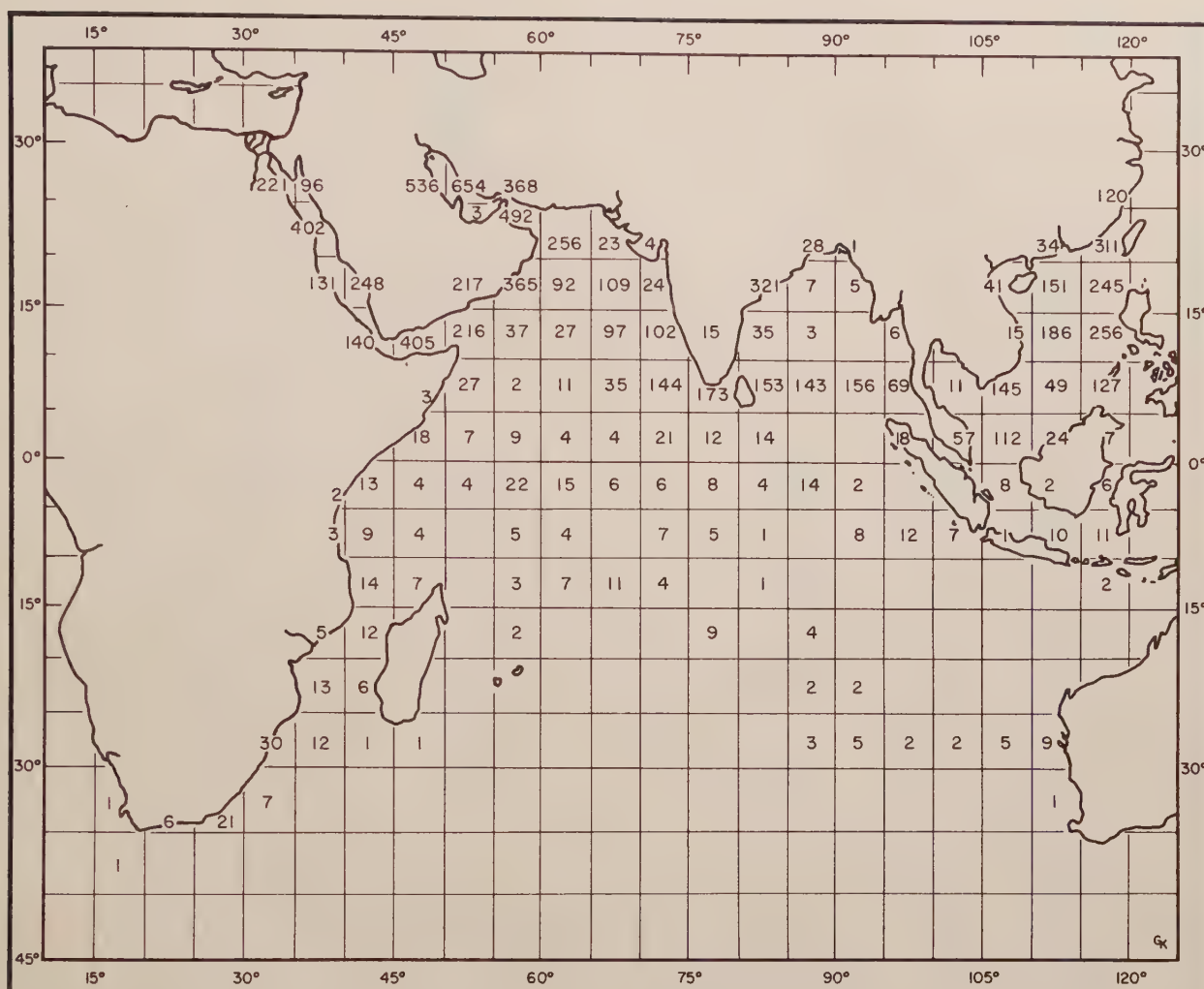


CHART 20. Bathythermograph observations, Indian Ocean, 1941-1955; total 9, 015

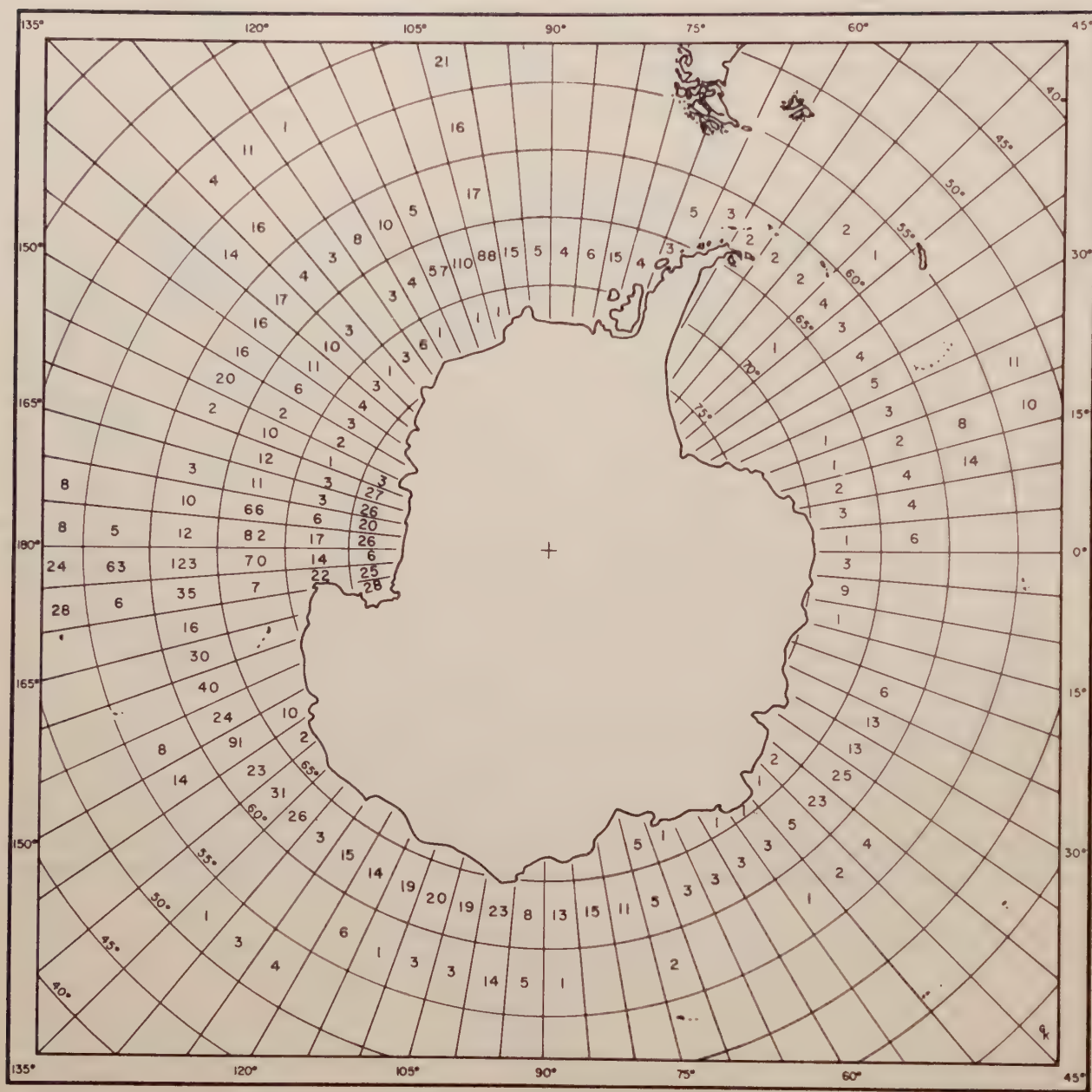


CHART 21. Bathythermograph observations, Antarctic Ocean, 1941-1955; total, 2,142

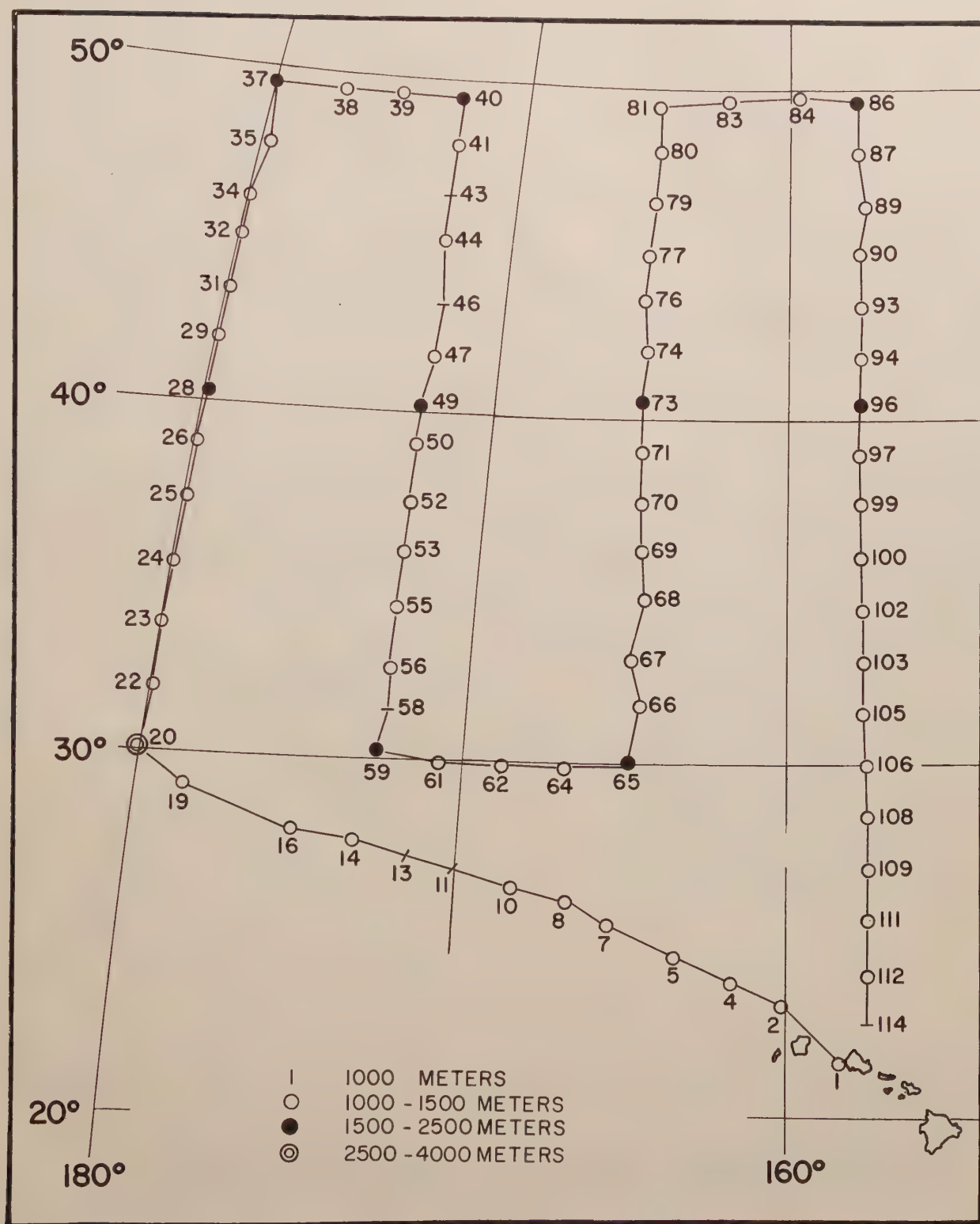


CHART 22. Station positions, Bureau of Commercial Fisheries, Honolulu, by the R/V *Hugh M. Smith* on NORPAC Expedition

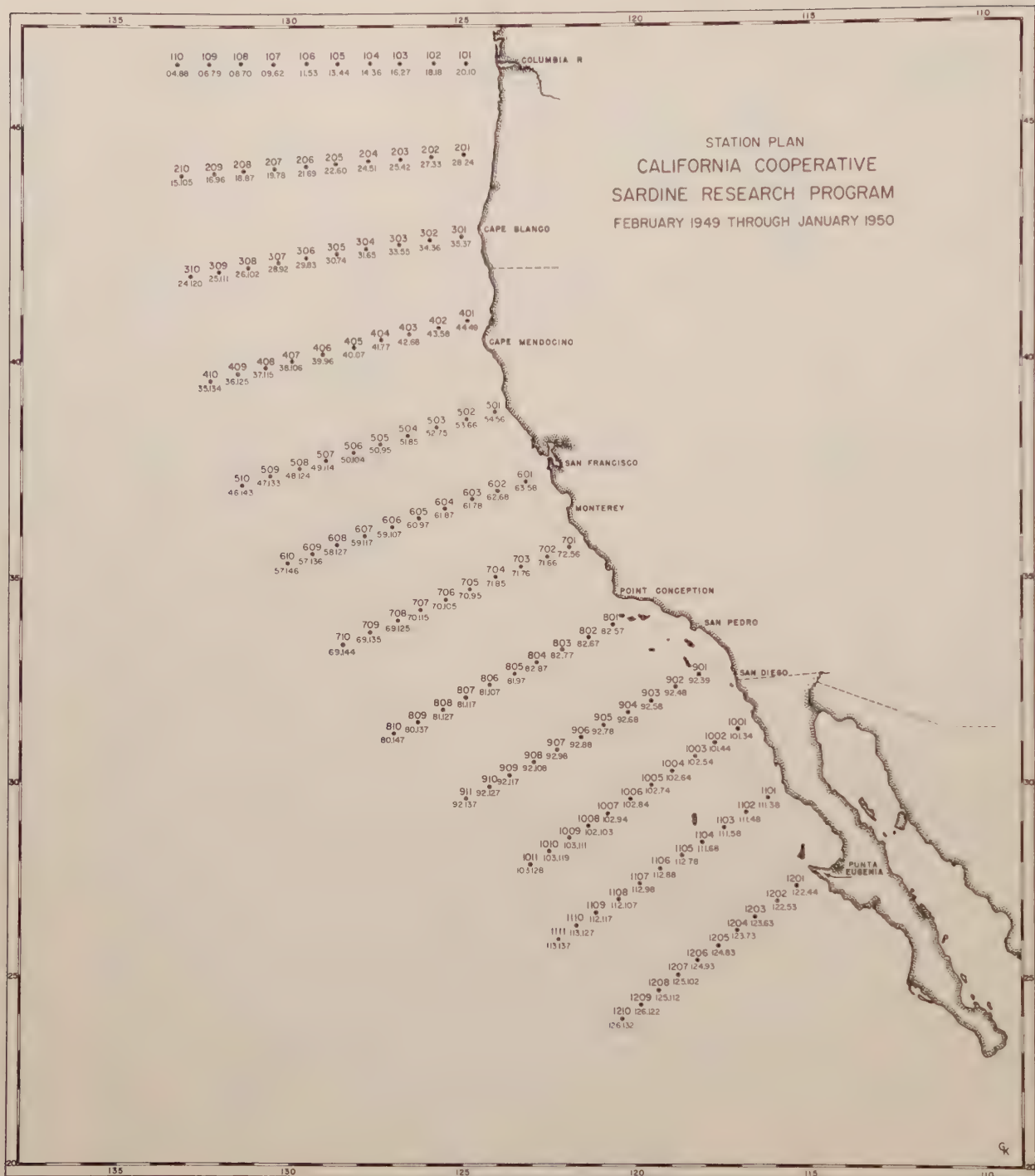


CHART 23. Station plan of the California Cooperative Oceanic Fisheries Investigations (formerly California Cooperative Sardine Program) from February, 1949, to January, 1950, inclusive, with equivalent numbers according to present station numbering system

Explanation of Tables

SIDE RUNNING HEADS

Cruise-identifying information is shown in the margin near the top of the page. The first line is an abbreviation of the name of the organization responsible for the data. The second and third lines give the cruise identification. In the case of data collected on the California Cooperative Oceanic Fisheries Investigations research program, for example, CCOFI 5501 signifies the January cruise of 1955.

Individual station numbers are given in the margin opposite the station data. Raised numbers in the CCOFI numbers indicate a position between lines or between stations of the standard station pattern. Station locations are shown in the appropriate station position charts.

HEADINGS OF GROUPS OF COLUMNS

OBSERVED: Corrected data at accepted depths of observation.

INTERPOLATED: Data at standard depths, interpolated from smooth distribution curves. The standard depths are those selected by the agencies.

COMPUTED: The results of computations based, in general, on interpolated values.

COLUMN HEADINGS

Z	Depth in meters at which observation was made or an interpolated value obtained.
T	Temperature of water in degrees centigrade at observed or interpolated depths.
S	Salinity of water in grams per kilogram (‰) at observed or interpolated depths.
O ₂	Concentration of dissolved oxygen in milliliters per liter (ml/L) at observed or interpolated depths.
PO ₄ -P	Concentration of dissolved inorganic phosphorus in microgram atoms per liter (μg at/L) or micromoles per liter at observed depths.
σ _t	Sigma-t in grams per liter (g/L) at observed or interpolated depths. Sigma-t can be defined

$$\sigma_t = 1000 (\rho_{ST0} - 1)$$

where ρ_{ST0} is the density, in grams per milliliter, of water of salinity, S, temperature, T, and at standard atmospheric pressure. Density is expressed in these units to be consistent with the tables used for the computations.

δ Specific volume anomaly, in centiliters per ton (cl/ton), although most of the column headings state $10^{-5}\text{cm}^3/\text{g}$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters/ton. Specific volume anomaly is defined as the difference between the specific volume of the water at a specified depth and the specific volume of a standard water with salinity of 35‰ and temperature of 0°C at the same depth. Specific volume anomaly is expressed in these units to be consistent with the tables used for the computations.

δ_T Thermosteric anomaly, the pressure-independent part of the specific volume anomaly. Specific volume anomaly is defined as

$$\delta = \alpha_{stp} - \alpha_{35, 0, p}$$

and is computed as

$$\delta = \Delta_{st} + \delta_{sp} + \delta_{tp}$$

The quantity Δ_{st} has been discussed by Sverdrup, Johnson and Fleming (1946, p. 58) and approximately represents potential specific volume anomaly. It is used here with the name (thermosteric anomaly), symbol (δ_T) and unit (centiliter per ton) suggested by Montgomery and Wooster (1954) although most of the column headings state $10^{-5}\text{cm}^3/\text{g}$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters/ton.

ΔD Geopotential anomaly, in dynamic meters (dynamic height), of the layer of water between the surface and the designated standard pressure. Geopotential anomaly is the difference between the geopotential thickness of the observed layer and the geopotential thickness of a layer bounded by the same pressures but having standard temperature, 0°C, and salinity, 35‰. The tabulated anomaly is determined from an approximation of the integral

$$\Delta D = \int_0^{p_z} \delta \, dp$$

where p is pressure in decibars (assumed equal to depth in meters) and subscript z denotes the value at the bottom of the layer under consideration. Since geopotential thickness is the product of geometrical thickness and the acceleration of gravity, a dynamic meter is equal to 10^5 ergs per gram and is the change in geopotential over a vertical distance of approximately 1.02 meter.

SUPPLEMENTARY STATION INFORMATION

Supplementary information about each station is to be found just above the tabulated data. This information includes name of ship, geographical location of station, date and time of observation, depth of water, a description of surface weather and sea state, wind direction and force, and wire angle. When there is more than one cast on a station, messenger times and wire angles are given for the casts in the order of increasing depth.

NOTES ON THE TABULATION OF DATA

1. Observed temperatures obtained by thermograph, bucket thermometer or bathythermograph are reported only to tenths of a degree. Temperatures by reversing thermometer are reported to hundredths of a degree.

2. Missing observed values are indicated by a hyphen (-).

3. Extrapolated values and values interpolated between remote observations are entered within parentheses.

4. Observed data from different casts are separated by a blank line.

5. The following notations have been used where appropriate:

p: pretrip or posttrip (premature
or delayed closure of water
bottle and reversal of thermometers)

Values which are not used in interpolation because they seem to be in error are indicated as follows:

r: rejected value

u: uncertain value

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
80.51-C	I-13	1902	34°26.5'	120°32.5'	90	360°	3	cloudy	slight	12.85	33.44
80.55-C	13	2055	34°19.0'	120°48.0'	420	360°	3	overcast	moderate	11.05	33.45
80.60-C	13	2320	34°08.5'	121°08.5'	1200	300°	4	cloudy	moderate	13.17	33.36
80.70-C	14	0400	33°48.5'	121°50.5'	2000+	340°	4	partly cloudy	rough	12.63	33.21
80.80-C	14	0845	33°28.5'	122°32.0'	2100	330°	5	cloudy	rough	13.94	33.05
83.40-C	15	0545	34°13.5'	119°22.5'	12	060°	2	clear	slight	13.22	33.50
83.43-C	15	0410	34°09.0'	119°35.5'	136	290°	2	clear	slight	13.35	33.45
83.51-C	14	2255	33°51.5'	120°08.0'	120	330°	3	partly cloudy	moderate	12.83	33.48
83.60-C	14	1840	33°33.5'	120°45.0'	900	320°	3	cloudy	rough	-	33.41
87.35-C	15	1045	33°50.0'	118°38.0'	350	040°	1	clear	slight	13.83	33.45
87.40-C	15	1315	33°40.0'	118°59.0'	480	250°	1	fog	smooth	13.12	33.40
87.50-C	15	1750	33°20.0'	119°41.0'	44	330°	1	partly cloudy	slight	13.03	33.44
87.60-C	15	2205	32°59.0'	120°21.0'	420	310°	3	overcast	rough	13.34	33.48
90.28-C	17	0145	33°28.5'	117°45.5'	37	330°	3	partly cloudy	rough	13.96	33.37
90.37-C	16	2030	33°10.0'	118°23.0'	650	300°	4	drizzle	moderate	13.90	33.45
90.45-C	16	1630	32°54.5'	118°56.0'	900	270°	4	drizzle	rough	14.24	33.41
90.50-C	16	1400	32°46.0'	119°14.0'	170	340°	4	rain	moderate	14.01	33.41
90.60-C	16	0922	32°24.5'	119°56.0'	500	240°	4	overcast	rough	14.01	33.43
90.70-C	16	0445	32°04.0'	120°38.0'	2100	270°	2	overcast	moderate	14.17	33.29

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
93.27-C	1-17	0620	32°55.0'	117°19.5'	109	330°	6	partly cloudy	very rough	14.01 33.40
93.30-C	19	2040	32°50.0'	117°31.0'	400	330°	3	partly cloudy	very rough	13.82 33.37
93.40-C	20	0236	32°30.5'	118°11.0'	980	320°	5	cloudy	rough	14.03 33.33
93.50-C	20	0730	32°09.0'	118°54.0'	840	310°	3	cloudy	rough	13.03 33.44
97.30-C	20	2245	32°15.0'	117°08.0'	27	320°	2	partly cloudy	moderate	13.44 33.37
97.32-C	20	2135	32°11.5'	117°17.0'	790	340°	3	cloudy	very rough	13.60 33.41
97.40-C	20	1645	31°56.0'	117°55.5'	1050	330°	4	partly cloudy	rough	14.51 33.33
97.50-C	20	1205	31°36.0'	118°36.0'	1300	330°	3	clear	rough	12.93 33.48
100.29-C	21	0315	31°42.0'	116°43.5'	80	310°	2	clear	slight	13.40 33.37
100.30-C	21	0415	31°40.0'	116°49.0'	280	320°	2	clear	slight	13.81 33.34
100.40-C	21	0855	31°21.0'	117°27.0'	1150	340°	3	clear	slight	14.55 33.39a)
100.50-C	21	1340	31°00.0'	118°06.0'	950	320°	3	clear	slight	14.72 33.38b)
100.60-C	21	1833	30°41.0'	118°47.0'	1550	340°	3	cloudy	rough	14.45 33.34
100.70-C	21	2350	30°20.0'	119°27.0'	2200	330°	4	partly cloudy	very rough	15.03 33.37
100.80-C	22	0425	30°01.0'	120°06.5'	2200	340°	4	partly cloudy	very rough	14.69 33.25
103.30-C	23	0530	31°03.5'	116°25.5'	40	350°	2	clear	smooth	13.40 33.30

a) Alternate value, 33.34‰.

b) Alternate value, 33.33‰.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
103.35-C	I-23	0310	30°55.0'	116°45.0'	930	350°	5	clear	rough	13.84	33.35
103.40-C	23	0020	30°45.0'	117°08.0'	830	020°	3	clear	rough	13.80	33.30
103.50-C	22	1925	30°28.5'	117°44.5'	1550	060°	2	clear	moderate	15.41	33.47
103.60-C	22	1455	30°08.0'	118°19.0'	1700	020°	3	partly cloudy	rough	14.06	33.34
107.32-C	23	0950	30°26.0'	116°11.0'	370	090°	2	clear	slight	14.10	33.33
107.35-C	23	1125	30°20.0'	116°23.0'	1000	060°	2	clear	slight	14.10	33.34
107.40-C	23	1405	30°10.0'	116°45.0'	1500	080°	3	clear	moderate	14.77	33.34
107.50-C	23	1830	29°51.5'	117°22.0'	1350	360°	4	clear	rough	14.73	33.40
107.60-C	23	2310	29°31.5'	118°02.0'	2000	030°	3	clear	moderate	15.39	33.45
110.33-C	25	0730	29°48.0'	115°52.0'	50	340°	2	clear	slight	14.16	33.33
110.35-C	25	0605	29°46.5'	116°00.0'	600	320°	2	clear	slight	14.63	33.36
110.40-C	25	0305	29°36.5'	116°19.5'	1350	330°	4	clear	missing	15.20	33.39
110.50-C	24	2210	29°17.0'	116°58.5'	1950	340°	3	clear	rough	15.57	33.43
110.60-C	24	1733	28°56.5'	117°38.5'	2010	360°	4	clear	moderate	15.29	33.39a)
110.70-C	24	1310	28°37.5'	118°16.0'	2000	010°	2	clear	moderate	15.45	33.46
110.80-C	24	0822	28°17.0'	118°56.0'	2200	360°	3	clear	moderate	15.45	33.36
113.30-C	25	1210	29°22.5'	115°17.5'	30	320°	3	clear	slight	13.80	33.35

a) Alternate value, 33.33‰.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
113.35-C	1-25	1435	29°12.0'	115°39.0'	650	340°	3	partly cloudy	rough	14.68	33.38
113.40-C	25	1700	29°02.0'	115°58.5'	1040	340°	2	partly cloudy	moderate	15.05	33.37
113.50-C	25	2130	28°41.0'	116°39.0'	2000	330°	3	partly cloudy	rough	15.00	33.41
113.60-C	26	0120	28°21.0'	117°18.0'	2000	340°	3	partly cloudy	moderate	15.24	33.54
117.26-C	27	1005	28°56.0'	114°41.0'	42	330°	2	clear	smooth	14.81	33.58
117.30-C	27	0815	28°50.5'	114°58.0'	55	360°	2	clear	slight	14.50	33.56
117.35-C	27	0535	28°39.0'	115°17.0'	143	360°	2	clear	moderate	14.33	33.43
117.40-C	27	0310	28°28.0'	115°35.5'	500	360°	3	clear	moderate	14.89	33.45
117.50-C	26	1000	28°08.0'	116°15.0'	2500	350°	4	clear	rough	15.01	33.45
117.60-C	26	0525	27°47.5'	116°54.0'	2050	350°	3	clear	moderate	15.81	33.54
120.25-C	27	1410	28°23.0'	114°14.5'	32	060°	3	clear	slight	14.62	33.54
120.30-C	27	1625	28°13.0'	114°35.0'	52	030°	3	cloudy	moderate	14.86	33.58
120.35-C	27	1840	28°03.0'	114°54.0'	45	320°	2	partly cloudy	slight	14.81	33.61
120.40-C	28	0317	27°53.0'	115°14.0'	27	360°	3	partly cloudy	slight	14.04	-
120.45-C	28	0550	27°43.0'	115°33.5'	1300	360°	3	clear	moderate	14.77	33.63
120.50-C	28	0815	27°32.5'	115°53.5'	2000	360°	3	clear	moderate	14.77	33.69
120.60-C	28	1240	27°13.0'	116°34.0'	2000+	360°	3	clear	moderate	15.66	33.48
120.70-C	28	1650	26°54.0'	117°11.0'	2050	010°	3	clear	moderate	16.01	33.48
120.80-C	28	2110	26°34.0'	117°44.0'	2200	020°	3	clear	moderate	16.42	33.49

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
120. 90-C	I-29	0135	26°12.0'	118°24.0'	2100	360°	3	clear	moderate	16.83	33.48
120. 100-C	29	0540	25°53.0'	119°06.0'	2200	340°	2	clear	moderate	16.71	33.50
123. 37-P	28	0840	27°24.5'	114°40.5'	40a)	040°	3	clear	slight	14.34	33.63
123. 40-P	28	1332	27°17.5'	114°52.5'	320a)	360°	5	clear	moderate	15.40	33.62
123. 45-P	28	1620	27°09.5'	115°13.0'	2250a)	330°	5	clear	moderate	15.71	33.61
123. 50-P	28	1920	26°59.0'	115°31.5'	2200a)	320°	4	clear	moderate	16.56	33.74
123. 55-P	28	2212	26°50.0'	115°50.0'	2200+a)	320°	5	clear	moderate	16.32	33.74
127. 34-P	28	0255	26°58.0'	114°05.0'	45a)	310°	2	partly cloudy	slight	14.76	-
127. 40-P	27	2328	26°41.0'	114°24.5'	1400a)	310°	3	cloudy	slight	15.23	33.58
127. 45-P	27	2023	26°31.0'	114°45.0'	1200+a)	320°	3	partly cloudy	moderate	17.20	33.84
127. 50-P	27	1725	26°23.0'	115°07.0'	-	330°	3	partly cloudy	moderate	17.09	33.84
127. 55-P	27	1435	26°19.0'	115°29.0'	1800a)	320°	4	partly cloudy	moderate	16.28	33.77
130. 30-P	26	1445	26°30.0'	113°25.5'	40a)	360°	3	partly cloudy	slight	14.53	33.66
130. 35-P	26	1833	26°17.5'	113°54.0'	150+a)	050°	3	cloudy	moderate	17.38	33.86
130. 40-P	26	2105	26°09.5'	114°04.0'	1000+a)	280°	1	cloudy	slight	17.31	33.89
130. 50-P	27	0242	25°52.0'	114°47.0'	1200+a)	300°	2	partly cloudy	slight	17.54	33.89

a) Fathometer inoperative; sounding read from chart.

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	S
130.60-P	I-27	0824	25°31.5'	115°23.0'	-	320°	4	clear	moderate	16.72	33.83a)
133.25-P	26	0824	26°06.0'	112°45.5'	40	calm		clear	smooth	16.24	33.80
133.30-P	26	0506	25°55.5'	113°06.0'	100+	calm		clear	smooth	15.89	33.76
133.40-P	25	2320	25°35.0'	113°46.0'	-	calm		clear	slight	16.87	33.84
137.23-P	25	0752	25°33.0'	112°20.0'	45	calm		clear	moderate	15.90	33.78
137.30-P	25	1158	25°18.5'	112°46.5'	100	300°	1	clear	slight	17.54	33.92
137.40-P	25	1738	25°01.5'	113°24.0'	1200	300°	1	partly cloudy	slight	16.91	33.91
140.30-P	25	0039	24°43.5'	112°23.5'	60	350°	5	clear	moderate	14.84	33.82
140.35-P	24	2135	24°37.0'	112°41.0'	2000	330°	3	clear	rough	16.68	33.88
140.40-P	24	1900	24°29.0'	113°00.0'	1200	340°	3	clear	rough	17.73	33.93
143.26-P	24	0645	24°18.5'	111°48.5'	28	360°	4	clear	slight	15.19	33.99
143.30-P	24	0900	24°11.5'	112°03.5'	125	020°	4	clear	moderate	17.36	33.88
143.35-P	24	1234	24°02.5'	112°23.5'	600	330°	4	clear	moderate	20.15	34.34
147.20-P	23	2315	23°57.0'	111°02.5'	65	330°	5	partly cloudy	rough	17.75	33.96
147.25-P	23	2008	23°47.5'	111°22.0'	180	350°	5	partly cloudy	rough	17.61	33.91
147.30-P	23	1342	23°26.0'	111°35.0'	14	340°	6	partly cloudy	very rough	20.31	34.34
150.19-P	23	0030	23°25.5'	110°39.5'	100	330°	5	partly cloudy	rough	16.94	34.09

a) Alternate value, 33.78%.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
150.25-P	I-23	0415	23°13.5'	111°02.0'	500	360°	5	clear	rough	19.98	34.28
150.30-P	23	0745	23°02.0'	111°20.0'	1500	330°	6	partly cloudy	rough	20.34	34.33
153.16-P	22	1740	22°54.0'	110°07.5'	200	340°	4	partly cloudy	rough	20.65	34.58
153.20-P	22	1300	22°35.0'	110°15.0'	600	360°	4	cloudy	very rough	18.71	34.08
153.30-P	22	0627	22°23.0'	110°56.0'	-	330°	6	clear	very rough	21.45	34.58
157.10-P	21	1422	22°27.5'	109°42.5'	800	040°	6	clear	very rough	19.94	34.41
157.20-P	21	1758	22°15.5'	109°59.0'	-	020°	3	partly cloudy	rough	21.68	34.63
157.30-P	22	0011	21°52.0'	110°37.0'	-	270°	4	partly cloudy	rough	22.37	34.76

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Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

80.55

PAOLINA-T; February 18, 1955; 0650 GCT; 34°14'N, 120°43'W; sounding, 410 fm; wind, 310°, force 5; weather, missing; sea, very rough; wire angle, 25°.

0	12.3	33.47		262	0	12.3	33.47		25.36	262	0.00
10	12.16	33.50		257	10	12.16	33.50		25.42	257	0.03
30	11.67	33.49		249	20	11.97	33.50		25.45	254	0.05
40	10.83	33.56		230	30	11.67	33.49		25.50	249	0.08
50	10.36	33.65		215	50	10.36	33.65		25.86	215	0.12
59	9.87	33.74		200	75	9.68	33.84		26.12	190	0.17
69	9.74	33.80a)		194	100	9.35	33.88		26.21	182	0.22
78	9.63	33.86		188	150	8.80	34.06		26.44	160	0.31
87	9.56	33.88		185	200	8.50	34.12		26.53	152	0.39
96	9.40	33.86		184	250	8.24	34.15		26.59	146	0.46
120	9.10	34.00		169	300	7.94	34.19		26.67	138	0.54
147	8.86	34.06		161	400	7.22	34.23		26.80	126	0.67
195	8.53	34.11		152	500	6.39	34.24		26.92	114	0.80
252	8.22	34.15		146	600	(5.70)	(34.30)		(27.06)	(101)	(0.91)
351	7.61	34.22		132							
468	6.61	34.23		118							
591	5.79	34.30		102							

80.60

PAOLINA-T; February 18, 1955; 0249 GCT; 34°08'N, 121°01'W; sounding, 900 fm; wind, 320°, force 5; weather, missing; sea, moderate; wire angle, 40°.

0	12.5	33.29		279	0	12.5	33.29		25.19	279	0.00
9	12.32	33.24		279	10	12.32	33.24		25.18	279	0.03
25	12.06	33.21		277	20	12.15	33.22		25.20	278	0.06
37	11.57	33.29		262	30	11.85	33.24		25.27	271	0.08
48	11.46	33.42		251	50	11.40	33.44		25.51	248	0.14
55	11.23	33.48		242	75	10.58	33.55		25.74	227	0.20
63	11.22	33.53		238	100	9.40	33.68		26.04	198	0.25
73	10.76	33.54		230	150	8.52	33.94		26.38	165	0.34
80	10.16	33.57		218	200	7.97	34.03		26.54	151	0.42
89	9.86	33.60		211	250	7.53	34.09		26.65	140	0.49
106	9.20	33.75		190	300	7.23	34.16		26.75	130	0.56
122	9.02	33.84b)		180	400	6.75	34.24		26.87	119	0.69
152	8.50	33.94		165	500	(6.06)	(34.28)		(26.99)	(107)	(0.81)
191	8.05	34.02		152							
266	7.40	34.10		138							
369	6.93	34.22		122							
488	6.14	34.27		108							

80.70

PAOLINA-T; February 17, 1955; 2129 GCT; 33°54.5'N, 121°42.5'W; sounding, 1940 fm; wind, 290°, force 3; weather, fog; sea, rough; wire angle, 13°.

0	12.6	33.17		289	0	12.6	33.17		25.08	289	0.00
11	12.12	33.12		284	10	12.12	33.12		25.13	284	0.03
26	12.17	33.32		270	20	12.14	33.24		25.23	275	0.06
56	12.12	33.39		264	30	12.17	33.34		25.29	269	0.08
65	12.04	33.36		266	50	12.14	33.38		25.33	266	0.14
75	10.92	33.19		258	75	10.92	33.19		25.40	258	0.20
90	10.25	33.37		234	100	10.03	33.44		25.75	226	0.26
111	9.38	33.48		210	150	8.79	33.80		26.24	179	0.37
134	9.05	33.68		192	200	8.14	33.98		26.48	156	0.45
163	8.58	33.87		171	250	7.41	34.03		26.62	143	0.53
215	7.96	34.01		152	300	6.66	34.05		26.73	133	0.60
291	6.77	34.04		134	400	6.32	34.21		26.91	116	0.73
397	6.36	34.21		116	500	5.74	34.29		27.05	102	0.84
535	5.56	34.31		98	600	5.22	34.34		27.15	93	0.94
722	4.76	34.38		85	700	4.82	34.37		27.21	86	1.04
956	3.99	34.48		69	800	4.48	34.42		27.29	79	1.13
1267	3.26	34.55		57	1000	3.82	34.50		27.42	66	1.29

a) Mean value of 33.78 and 33.82‰.

b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

SIO

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5502

PAOLINA-T; February 17, 1955; 1443 GCT; 33°35'N, 122°23'W; sounding, 2130 fm; wind, 260°, force 4;
weather, cloudy; sea, rough; wire angle, 12°.

80.80

0	12.7	33.05		300	0	12.7	33.05		24.96	300	0.00
10	12.68	33.03		301	10	12.68	33.03		24.95	301	0.03
26	12.22	33.05		291	20	12.44	33.04		25.00	297	0.06
56	11.58	33.10		276	30	12.12	33.06		25.08	289	0.09
65	11.54	33.19		269	50	11.68	33.09		25.19	279	0.15
75	10.78	33.19		256	75	10.78	33.19		25.43	256	0.21
89	10.02	33.37a)		230	100	9.59	33.42		25.80	220	0.27
107	9.35	33.44		215	150	8.55	33.80		26.27	176	0.37
131	8.85	33.78		181	200	7.80	33.90		26.46	158	0.46
159	8.39	33.81		173	250	7.23	33.98		26.60	144	0.54
282	6.96	34.04		136	300	6.82	34.08		26.73	132	0.61
382	6.44	34.20		118	400	6.36	34.22		26.91	115	0.74
516	5.61	34.34		97	500	5.70	34.33		27.08	99	0.85
696	4.74	34.42		82	600	5.17	34.38		27.19	89	0.95
922	4.05	34.48		70	700	4.72	34.42		27.26	82	1.04
1226	3.37	34.53		60	800	4.40	34.45		27.32	76	1.12
					1000	3.82	34.49		27.42	67	1.28

PAOLINA-T; February 16, 1955; 1024 GCT; 34°13'N, 119°22.5'W; sounding, 18 fm; wind, 120°, force 1;
weather, overcast; sea, slight; wire angle, 00°.

8340

1	12.81	33.43		274	0	(12.81)	(33.43)		(25.23)	(274)	(0.00)
6	12.85	33.43		275	10	12.86	33.45		25.24	274	0.03
11	12.84	33.45		274	20	12.23	33.46		25.36	262	0.05
16	12.51	33.41		270							
21	12.22	33.46		262							
26	12.24	33.47		261							

PAOLINA-T; February 16, 1955; 1224 GCT; 34°08'N, 119°34'W; sounding, 135 fm; wind, 090°, force 1;
weather, overcast; sea, smooth; wire angle, 00°.

8343

0	12.80	33.44		273	0	12.80	33.44		25.25	273	0.00
10	12.50	33.46		266	10	12.50	33.46		25.32	266	0.03
15	12.42	33.45		266	20	12.35	33.45		25.34	264	0.05
20	12.35	33.45		264	30	12.03	33.43		25.38	260	0.08
25	12.23	33.49		260	50	11.48	33.52		25.55	244	0.13
30	12.03	33.43		260	75	10.30	33.66		25.88	213	0.19
35	11.90	33.48		254	100	9.69	33.83		26.11	191	0.24
45	11.64	33.49		249	150	9.00	34.07		26.42	162	0.33
55	11.23	33.55		237	200	8.48	34.14		26.55	150	0.41
65	10.60	33.55		226							
74	10.30	33.66		214							
94	9.79	33.78		197							
108	9.58	33.88		186							
139	9.17	34.01		169							
168	8.74	34.15		152							
203	8.46	34.14		149							

a) Loose bottle cap; value falls on property curve.

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta_{T_3}^{-5}$	Z	T	S	O ₂	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

8351

PAOLINA-T; February 16, 1955; 1958 GCT; 33°51.5'N, 120°08'W; sounding, 115 fm; wind, 200°, force 1; weather, rain; sea, smooth; wire angle, 00°.

0	12.62	33.40	273	0	12.62	33.40			25.25	273	0.00
10	12.55	33.40	272	10	12.55	33.40			25.26	272	0.03
15	12.54	33.40	272	20	11.92	33.41			25.39	260	0.05
20	11.92	33.41	260	30	11.19	33.44			25.55	245	0.08
25	11.38	33.45	247	50	10.00	33.65			25.92	209	0.12
30	11.19	33.44	245	75	9.56	33.85			26.15	188	0.17
35	10.66	33.50	231	100	9.30	33.94			26.26	177	0.22
45	10.33	33.57	221	150	9.12	34.04			26.37	166	0.31
55	9.70	33.73	199								
65	9.61	33.80	192								
81	9.49	33.87a)	185								
99	9.31	33.94	177								
118	9.24	34.00	172								
154	9.09	34.04	166								

8360

PAOLINA-T; February 17, 1955; 0134 GCT; 33°34'N, 120°45'W; sounding, 650 fm; wind, 180, force 5; weather, overcast; sea, moderate; wire angle, 15°.

0	12.1	33.39	264	0	12.1	33.39			25.34	264	0.00
10	11.70	33.41	256	10	11.70	33.41			25.43	256	0.03
30	11.38	33.48	245	20	11.52	33.45			25.49	250	0.05
39	11.30	33.49	243	30	11.38	33.48			25.55	245	0.08
49	11.13	33.48	240	50	11.11	33.48			25.59	240	0.12
59	10.65	33.51	230	75	9.95	33.56			25.86	215	0.18
68	10.20	33.53	222	100	9.24	33.80			26.15	187	0.23
78	9.80	33.58	212	150	9.81	34.04			26.41	163	0.32
87	9.55	33.68	200	200	8.42	34.14			26.56	149	0.40
97	9.32	33.76	191	250	7.95	34.18			26.66	139	0.47
121	9.10	33.93	174	300	7.58	34.22			26.74	131	0.54
148	8.86	34.03	163	400	6.87	34.28			26.88	118	0.67
194	8.48	34.13	150	500	6.24	34.31			26.99	107	0.79
250	7.95	34.18b)	139	600	(6.67)	(34.33)			(27.09)	(98)	(0.90)
350	7.20	34.25	124								
466	6.42	34.30	110								
591	5.74	34.33	99								

8735

PAOLINA-T; February 16, 1955; 0346 GCT; 33°49.5'N, 118°38'W; sounding, 340 fm; wind, 240°, force 5; weather, overcast; sea, moderate; wire angle, 08°.

0	13.2	33.39	285	0	13.2	33.39			25.13	285	0.00
10	12.79	33.45	272	10	12.79	33.45			25.26	272	0.03
15	12.72	33.41	274	20	12.65	33.41			25.25	273	0.06
20	12.65	33.41	273	30	12.42	33.38			25.27	271	0.08
25	12.56	33.42	270	50	10.73	33.44			25.63	237	0.13
30	12.42	33.38	271	75	9.97	33.64			25.91	210	0.19
40	11.52	33.41	252	100	9.74	33.77			26.06	196	0.24
50	10.73	33.44	237	150	9.40	34.03			26.33	170	0.33
64	10.17	33.55	219	200	9.22	34.21			26.48	156	0.42
78	9.90	33.67	206	250	8.85	34.24			26.57	147	0.49
98	9.76	33.77	196	300	8.28	34.24			26.67	138	0.57
121	9.62	33.88	186	400	7.39	34.29			26.83	123	0.70
159	9.34	34.07	168								
199	9.22	34.21	156								
248	8.86	34.24	148								
321	8.02	34.24	136								
402	7.38	34.29	123								

a) Alternate value, 33.92‰, not used in interpolation.

b) Alternate value, 34.14‰, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

S10

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PAOLINA-T; February 16, 1955; 0037 GCT; 33°39.5'N, 118°58.5'W; sounding, 500 fm; wind, 260°, force 2; weather, overcast; sea, slight; wire angle, 05°.

8740

0	13.3	33.42		284	0	13.3	33.42		25.13	284	0.00
10	12.54	33.42		270	10	12.54	33.42		25.28	270	0.03
15	12.45	33.44		267	20	12.24	33.45		25.36	262	0.05
20	12.24	33.45		262	30	12.13	33.43		25.37	262	0.08
25	12.14	33.44		261	50	11.37	33.51		25.57	242	0.13
30	12.13	33.43		262	75	10.38	33.58		25.80	221	0.19
40	11.93	33.62u		-	100	9.92	33.74		26.00	202	0.24
50	11.37	33.51		242	150	9.49	33.91		26.21	182	0.34
65	10.71	33.53		230	200	8.84	34.14		26.49	155	0.42
79	10.24	33.61		216	250	8.72	34.26		26.61	144	0.50
99	9.94	33.74		202	300	7.91	34.28		26.74	132	0.57
123	9.78	33.80		195	400	6.95	34.34		26.92	114	0.70
162	9.36	33.96		176							
200	8.84	34.14		155							
251	8.72	34.26		144							
325	7.52	34.28		126							
406	6.92	34.34		113							

PAOLINA-T; February 15, 1955; 1855 GCT; 33°20'N, 119°40'W; sounding, 40 fm; wind, 240°, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°.

8750

0	13.61	33.37		294	0	13.61	33.37		25.03	294	0.00
10	13.43	33.30		296	10	13.43	33.30		25.01	296	0.03
15	13.42	33.35		292	20	13.38	33.40		25.10	287	0.06
20	13.38	33.40		287	30	13.20	33.36		25.10	287	0.09
25	13.30	33.37		288	50	11.98	33.29		25.29	269	0.14
30	13.20	33.36		287							
35	12.59	33.33		278							
40	12.46	33.35		274							
50	11.98	33.29		269							
60	10.66	33.35		242							

PAOLINA-T; February 15, 1955; 1333 GCT; 33°03.5'N, 120°20'W; sounding, 336 fm; wind, 360°, force 3; weather, clear; sea, slight; wire angle, 06°.

8760

0	13.4	33.44		285	0	13.4	33.44		25.12	285	0.00
10	13.27	33.35		289	10	13.27	33.35		25.08	289	0.03
30	12.44	33.42		268	20	12.96	33.37		25.16	282	0.06
40	11.88	33.40		260	30	12.44	33.42		25.30	268	0.08
50	10.94	33.73r		-	50	10.94	33.45		25.60	240	0.14
60	10.35	33.50		226	75	9.80	33.62		25.93	208	0.19
70	9.93	33.68u		-	100	9.14	33.80		26.18	185	0.24
80	9.68	33.59u		-	150	8.26	34.01		26.48	156	0.33
90	9.34	33.72		194	200	8.03	34.14		26.61	144	0.40
100	9.14	33.80		185	250	7.72	34.19		26.70	136	0.48
119	8.91	33.87		176	300	7.31	34.24		26.80	126	0.54
144	8.36	34.00		158	400	6.39	34.32		26.99	108	0.66
163	8.15	34.02		154	500	6.03	34.33		27.04	103	0.77
202	8.02	34.14		143							
278	7.48	34.22		130							
381	6.49	34.32		110							
502	6.02	34.33		103							

PAOLINA-T; February 14, 1955; 0053 GCT; 33°28.5'N, 117°45.5'W; sounding, 35 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°.

9028

0	13.65	33.39		293	0	13.65	33.39		25.04	293	0.00
10	13.04	33.38		282	10	13.04	33.38		25.15	282	0.03
16	12.96	33.35		283	20	12.88	33.36		25.17	281	0.06
20	12.88	33.36		281	30	12.47	33.36		25.25	273	0.08
26	12.75	33.37		278							
30	12.47	33.36		273							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

90.30

PAOLINA-T; February 14, 1955; 0244 GCT; 33°24'N, 117°54.5'W; sounding, 310 fm; wind, 190°, force 2;
weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.11	33.38		302	0	14.11	33.38		24.94	302	0.00
10	13.36	33.40		287	10	13.36	33.40		25.10	287	0.03
15	13.32	33.37		288	20	13.04	33.41		25.17	280	0.06
20	13.04	33.41		280	30	12.90	33.41		25.21	277	0.09
25	12.97	33.38		281	50	11.74	33.36		25.38	260	0.14
30	12.90	33.41		277	75	10.73	33.62		25.77	223	0.20
40	13.61r	33.38		-	100	10.12	33.71		25.95	207	0.25
50	11.74	33.36		260	150	9.17	34.14		26.44	160	0.35
65	10.79	33.51		232	200	9.00	34.15		26.48	156	0.43
80	10.72	33.69		218	250	8.43	34.21		26.61	144	0.50
101	10.09	33.71		206	300	8.22	34.30		26.71	134	0.58
125	9.55	33.80		192	400	7.13	34.37		26.93	114	0.70
164	9.06	34.15		157							
203	8.99	34.15		156							
252	8.41	34.21		144							
325	8.06	34.35		128							
405	7.02	34.37		113							

90.37

PAOLINA-T; February 14, 1955; 0720 GCT; 33°12'N, 118°24.5'W; sounding, 600 fm; wind, 230°, force 3;
weather, fog; sea, slight; wire angle, 05°.

0	13.83	33.38		297	0	13.83	33.38		25.00	297	0.00
10	13.82	33.31		302	10	13.82	33.31		24.94	302	0.03
30	13.38	33.35		291	20	13.60	33.32		24.99	298	0.06
40	13.10	33.40		282	30	13.38	33.35		25.06	291	0.09
50	12.52	33.37		274	50	12.52	33.37		25.24	274	0.15
60	11.05	33.38		247	75	10.53	33.53		25.73	227	0.21
70	10.58	33.58u		-	100	10.05	33.59		25.86	215	0.26
80	10.53	33.49u		-	150	9.22	33.88		26.23	180	0.36
90	10.21	33.54		221	200	8.64	34.10		26.50	154	0.45
100	10.05	33.59		215	250	8.39	34.23		26.63	142	0.52
125	9.94	33.86		193	300	8.03	34.28		26.72	133	0.60
155	9.13	33.89		178	400	7.19	34.32		26.88	118	0.72
202	8.62	34.11		154	500	6.26	34.32		27.00	106	0.84
260	8.36	34.24		140	600	5.69	34.41		27.14	93	0.95
362	7.56	34.32		124							
480	6.40	34.32		108							
606	5.68	34.41		93							

90.45

PAOLINA-T; February 14, 1955; 1247 GCT; 32°54'N, 118°58.5'W; sounding, 900 fm; wind, 330°, force 1;
weather, clear; sea, slight; wire angle, 04°.

0	13.88	33.40		297	0	13.88	33.40		25.00	297	0.00
10	13.89	33.39		298	10	13.89	33.39		24.99	298	0.03
30	13.37	33.38		288	20	13.74	33.38		25.02	295	0.06
40	13.09	33.33		287	30	13.37	33.38		25.09	288	0.09
50	12.73	33.34		280	50	12.73	33.34		25.18	280	0.15
60	11.91	33.30		268	75	10.68	33.36		25.57	242	0.21
70	10.91	33.35		246	100	9.88	33.58		25.88	213	0.27
81	10.54	33.37		239	150	9.62	34.10		26.34	170	0.36
91	10.13	33.50		223	200	8.42	34.08		26.51	153	0.45
101	9.86	33.59		212	250	7.94	34.10		26.60	145	0.52
126	9.88	33.92		187	300	7.56	34.15		26.69	136	0.60
155	9.49	34.10		168	400	7.19	34.25		26.87	119	0.73
203	8.38	34.08		152	500	6.88	34.32		27.00	107	0.85
261	7.84	34.11		143	600	5.81	34.36		27.09	98	0.95
363	7.08	34.22		124							
482	6.38	34.29a)		113							
607	5.80	34.36		98							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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PAOLINA-T; February 14, 1955; 1644 GCT; 32°44'N, 119°16'W; sounding, 155 fm; wind, 320°, force 3;
weather, cloudy; sea, moderate; wire angle, 04°.

90.50

0	13.76	33.40		295	0	13.76	33.40		25.02	295	0.00
10	13.61	33.39		292	10	13.61	33.39		25.04	292	0.03
15	13.42	33.36		291	20	13.14	33.35		25.11	286	0.06
20	13.14	33.35		286	30	12.72	33.32		25.17	281	0.09
25	12.96	33.33		284	50	10.88	33.41		25.58	241	0.14
30	12.72	33.32		281							
35	11.53	33.37		255							
40	11.22	33.40		248							
50	10.88	33.41		241							
60	10.45	33.45		232							

PAOLINA-T; February 14, 1955; 2251 GCT; 32°22'N, 119°58'W; sounding, 460 fm; wind, 010°, force 4;
weather, cloudy; sea, rough; wire angle, 05°.

90.60

0	13.3	33.37		289	0	13.3	33.37		25.08	289	0.00
10	13.00	33.38		282	10	13.00	33.38		25.16	282	0.03
30	12.85	33.36		280	20	12.89	33.38		25.17	280	0.06
40	12.82	33.37		279	30	12.85	33.36		25.17	280	0.08
50	12.52	33.39		272	50	12.52	33.39		25.26	272	0.14
61	10.72	33.45		236	75	9.69	33.61		25.93	208	0.20
71	9.99	33.54		217	100	9.19	33.83		26.20	183	0.25
81	9.48	33.67		200	150	8.79	34.02		26.41	163	0.34
91	9.28	33.75		190	200	7.99	34.08		26.58	147	0.42
101	9.18	33.84		182	250	7.65	34.18		26.69	136	0.49
126	8.98	33.89		175	300	7.33	34.23		26.79	126	0.56
156	8.71	34.04		160	400	6.63	34.30		26.93	113	0.68
205	7.92	34.09		146	500	6.11	34.34		27.04	103	0.79
263	7.60	34.19		134	600	5.58	34.39		27.14	93	0.90
365	6.84	34.28		117							
483	6.20	34.33		105							
608	5.49	34.39		92							

PAOLINA-T; February 15, 1955; 0445 GCT; 32°04'N, 120°38'W; sounding, 2100 fm; wind, 270°, force 2;
weather, missing; sea, moderate; wire angle, 00°.

90.70

0	13.6	33.32		298	0	13.6	33.32		24.99	298	0.00
10	13.48	33.28		298	10	13.48	33.28		24.98	298	0.03
25	13.46	33.46u		-	20	13.47	33.28		24.99	298	0.06
50	13.25	33.31		291	30	13.43	33.31		25.02	295	0.09
60	13.33	33.30		292	50	13.25	33.31		25.06	291	0.15
70	13.34	33.33		291	75	13.24	33.30		25.04	293	0.22
80	13.11	33.22		297	100	12.91	33.29		25.11	286	0.29
100	12.91	33.29		286	150	9.57	33.54		25.91	210	0.42
124	10.84	33.27		251	200	8.17	33.95		26.45	159	0.51
154	9.40	33.58		206	250	7.52	34.06		26.63	142	0.59
203	8.16	33.96		158	300	7.09	34.12		26.74	132	0.66
271	7.31	34.09		137	400	6.36	34.19		26.89	118	0.79
374	6.50	34.18		120	500	5.70	34.24		27.02	105	0.91
503	5.64	34.25		104	600	5.20	34.39		27.19	89	1.01
684	4.97	34.43		84	700	4.92	34.43		27.26	82	1.10
906	4.19	34.47		72	800	4.65	34.44		27.30	79	1.19
1212	3.42	34.54		60	1000	4.08	34.48		27.39	70	1.35

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

93.27

PAOLINA-T; February 13, 1955; 1916 GCT; 32°56'N, 117°19'W; sounding, 46 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°.

0	13.40	33.42		286	0	13.40	33.42		25.11	286	0.00
10	13.04	33.42		280	10	13.04	33.42		25.18	280	0.03
15	12.82	33.37		279	20	12.79	33.38		25.20	278	0.06
20	12.79	33.38		278	30	12.51	33.30		25.20	278	0.08
25	12.64	33.33		279	50	11.57	33.40		25.45	254	0.14
30	12.51	33.30		278							
35	-	33.39		-							
40	12.00	33.38		263							
50	11.57	33.40		254							
61	10.41	33.48		228							

93.30

PAOLINA-T; February 13, 1955; 1606 GCT; 32°50.5'N, 117°31.5'W; sounding, 455 fm; wind, 360°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	13.08	33.41		281	0	13.08	33.41		25.17	281	0.00
10	12.98	33.40		280	10	12.98	33.40		25.18	280	0.03
30	10.83	33.35		245	20	12.20	33.38		25.32	267	0.06
40	10.48	33.40		235	30	10.83	33.35		25.54	245	0.08
51	10.39	33.49		227	50	10.40	33.49		25.73	227	0.13
61	9.70	33.51		215	75	9.35	33.60		25.99	202	0.18
71	-	33.57		-	100	9.20	33.75		26.13	189	0.23
80	9.30	33.62		200	150	9.38	34.09		26.37	167	0.32
90	9.19	33.68a)		194	200	9.16	34.23		26.52	152	0.40
100	9.20	33.75		189	250	8.99	34.32		26.61	144	0.48
126	9.46	33.96		178	300	8.75	34.34		26.67	138	0.55
155	9.36	34.11		164	400	7.82	34.33		26.80	126	0.69
203	9.14	34.24		152	500	6.67	34.31		26.94	112	0.81
262	8.96	34.33		142	600	5.84	34.41		27.14	94	0.92
364	8.20	34.34		131							
483	6.83	34.31		114							
610	5.79	34.42		93							

93.40

PAOLINA-T; February 13, 1955; 0911, 1022 GCT; 32°33.5'N, 118°08.5'W; sounding, 950 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°, 03°.

0	13.23r	33.49		-	0	13.9	33.49		25.06	291	0.00
10	13.74	33.48		288	10	13.74	33.48		25.09	288	0.03
31	12.85	33.52		268	20	13.28	33.49		25.19	279	0.06
41	12.84	33.54		267	30	12.86	33.52		25.29	269	0.08
51	11.66	33.57		243	50	11.80	33.57		25.54	246	0.14
61	10.82	33.48		236	75	10.02	33.60		25.87	214	0.19
71	10.20	33.56		220	100	9.46	33.73		26.07	195	0.24
81	9.82	33.64		208	150	8.54	33.96		26.40	164	0.34
91	9.63	33.68b)		201	200	8.78	34.20		26.55	149	0.42
101	9.46	33.74		194	250	8.68	34.35		26.69	136	0.49
126	9.02	33.94		172	300	8.34	34.38		26.76	130	0.56
155	8.49	33.97		162	400	7.40	34.36		26.88	118	0.68
202	8.77c)	34.20		149	500	6.36	34.32		26.99	108	0.80
					600	5.59	34.38		27.14	94	0.91
200	8.80c)	34.21		149							
265	8.60	34.37		134							
367	7.74	34.38		122							
485	6.46	34.32		109							
610	5.49	34.39		92							

a) Alternate value, 33.71‰, not used in interpolation.

b) Alternate value, 33.72‰, not used in interpolation.

c) Curve drawn between the points.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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PAOLINA-T; February 13, 1955; 0238 GCT; 32°09.5'N, 118°50.5'W; sounding, 630 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.

9350

0	13.47	33.38	290	0	13.47	33.38		25.06	290	0.00
10	13.46	33.40	289	10	13.46	33.40		25.08	289	0.03
30	13.24	33.37	287	20	13.34	33.39		25.10	288	0.06
40	13.22	33.34	288	30	13.24	33.37		25.10	287	0.09
50	13.09	33.37	284	50	13.09	33.37		25.13	284	0.14
59	11.34	33.39	251	75	10.10	33.45		25.75	226	0.21
69	10.29	33.42	231	100	9.32	33.75		26.11	191	0.26
79	10.00	33.48	222	150	8.65	33.96		26.38	165	0.35
89	9.74	33.64	206	200	8.00	34.12		26.61	144	0.43
97	9.38	33.73	194	250	7.52	34.16		26.71	134	0.50
121	9.19	33.80	184	300	7.13	34.19		26.78	127	0.57
149	8.67	33.95	167	400	6.43	34.26		26.93	113	0.69
195	8.06	34.12	145	500	5.98	34.33		27.05	102	0.80
250	7.52	34.16	134	600	(5.41)	(34.37)		(27.15)	(92)	(0.91)
350	6.74	34.23	119							
467	6.12	34.32	104							
590	5.52	34.37	94							

PAOLINA-T; February 12, 1955; 0148 GCT; 32°15'N, 117°08.5'W; sounding, 28 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.

9730

0	13.36	33.39	288	0	13.36	33.39		25.10	288	0.00
10	13.05	33.44	278	10	13.05	33.44		25.20	278	0.03
15	13.00	33.37	282	20	12.75	33.37		25.20	278	0.06
20	12.75	33.37	278	30	12.05	33.42		25.38	261	0.08
26	12.27	33.37	269							
31	12.01	33.42	260							

PAOLINA-T; February 12, 1955; 0414 GCT; 32°11.5'N, 117°17'W; sounding, 750 fm; wind, 340°, force 4; weather, partly cloudy; sea, slight; wire angle, 05°.

9732

0	13.75	33.36	297	0	13.75	33.36		24.99	297	0.00
10	13.34	33.36	290	10	13.34	33.36		25.07	290	0.03
21	13.10	33.36	286	20	13.12	33.36		25.12	286	0.06
41	11.85	33.34	264	30	12.53	33.35		25.23	275	0.09
61	10.64	33.49	232	50	11.22	33.41		25.52	247	0.14
80	10.15	33.56	218	75	10.26	33.54		25.79	222	0.20
100	10.16	33.84	198	100	10.16	33.84		26.04	198	0.25
120	9.86	33.95	185	150	9.45	34.00		26.28	175	0.34
140	9.69	33.97	181	200	9.23	34.20		26.48	156	0.43
159	9.25	34.04	169	250	(8.33)	(34.18)		(26.60)	(144)	(0.50)
178	9.14	34.08	164							
197	9.24	34.18	158							
216	9.16	34.23	153							
225	9.01	34.24	150							
235	8.92	34.22	150							
245	8.50	34.19	146							

S10

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

97.32

PAOLINA-T; February 12, 1955; 0647 GCT; 32°11.5'N, 117°17'W; sounding, 750 fm; wind, 340°, force 4; weather, partly cloudy; sea, slight; wire angle, 04°.

0	13.54	33.37		292	0	13.54	33.37		25.04	292	0.00
11	13.26	33.36		288	10	13.29	33.36		25.09	289	0.03
31	12.78	33.33		281	20	13.03	33.35		25.12	285	0.06
41	12.12	33.36		267	30	12.81	33.33		25.16	282	0.09
50	10.80	33.41		240	50	10.80	33.41		25.60	240	0.14
60	10.42	33.46		230	75	10.23	33.73		25.93	208	0.19
70	10.29	33.63		216	100	10.06	33.93		26.13	190	0.24
80	10.20	33.80		202	150	9.26	34.02		26.33	170	0.34
91	10.12	33.82		199	200	9.16	34.20		26.49	155	0.42
101	10.00	33.94		189	250	9.00	34.27		26.57	147	0.50
126	9.76	33.99		180	300	8.62	34.33		26.68	137	0.57
155	9.18	34.03		168	400	7.74	34.39		26.85	121	0.70
204	9.16	34.21		154	500	6.82	34.38		26.97	109	0.82
262	8.92	34.30		144	600	5.83	34.38		27.11	97	0.93
365	8.04	34.39		125							
483	7.00	34.38		111							
608	5.78	34.38		96							

97.40

PAOLINA-T; February 12, 1955; 1241 GCT; 31°56'N, 117°51'W; sounding, 650 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 00°.

0	13.52	33.41		289	0	13.52	33.41		25.08	289	0.00
10	13.49	33.37		291	10	13.49	33.37		25.06	291	0.03
30	12.84	33.39		278	20	13.18	33.38		25.12	285	0.06
40	12.74	33.35		279	30	12.84	33.39		25.20	278	0.09
50	12.57	33.35		276	50	12.57	33.35		25.22	276	0.14
60	12.49	33.39		272	75	10.84	33.36		25.55	245	0.21
70	11.41	33.37		254	100	9.50	33.58		25.95	207	0.26
80	10.34	33.36		236	150	8.85	33.96		26.36	167	0.36
90	9.96	33.62		211	200	8.70	34.24		26.59	145	0.44
100	9.50	33.58		207	250	8.21	34.29		26.70	135	0.51
126	9.12	33.86		180	300	7.70	34.30		26.79	126	0.58
154	8.72	33.97		166	400	6.96	34.35		26.94	113	0.70
203	8.68	34.25		144	500	6.38	34.44		27.08	100	0.81
262	8.10	34.29		133	600	5.69	34.42		27.16	92	0.91
364	7.08	34.32		117							
484	6.47	34.44		100							
608	5.60	34.42		91							

97.50

PAOLINA-T; February 12, 1955; 1859, 1943 GCT; 31°34'N, 118°25'W; sounding, 875 fm; wind, 320°, force 4; weather, partly cloudy; sea, slight; wire angle, 05°, 05°.

0	14.30	33.36		308	0	14.30	33.36		24.88	308	0.00
10	14.22	33.29		312	10	14.22	33.29		24.84	312	0.03
30	14.14	33.30		309	20	14.18	33.30		24.86	310	0.06
40	14.14	33.27		311	30	14.14	33.30		24.87	309	0.09
51	14.10	33.29		309	50	14.12	33.29		24.87	309	0.16
61	13.64	33.26		302	75	12.40	33.22		25.15	282	0.23
71	12.63	33.22a)		286	100	10.78	33.33		25.54	246	0.30
81	12.14	33.23		277	150	9.00	33.77		26.18	185	0.40
91	11.25	33.30		256	200	8.59	34.12		26.51	153	0.49
100	10.78	33.33		246	250	8.20	34.24		26.66	138	0.57
124	9.43	33.55		208	300	7.75	34.28		26.76	130	0.64
153	8.99	33.78		184	400	6.92	34.33		26.92	114	0.76
202	8.58	34.18		148	500	6.26	34.38		27.05	102	0.87
					600	5.62	34.42		27.16	91	0.98
197	8.64	34.09		156							
261	8.14	34.25		136							
365	7.16	34.31		119							
483	6.38	34.38b)		104							
608	5.59	34.42		91							

a) Alternate value, 33.27‰, not used in interpolation.

b) Alternate value, 34.45‰, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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CREST; February 11, 1955; 0635, 0650 GCT; 31°42'N, 116°43.5'W; sounding, 100 fm; wind, 060°, force 3; weather, clear; sea, slight; wire angle, 04°, 03°.

100.29

0	12.77	33.40	6.86	276	0	12.77	33.40	6.86	25.22	276	0.00
10	12.64	33.33	7.02	279	10	12.64	33.33	7.02	25.19	279	0.03
15	12.46	33.33	6.64	275	20	12.26	33.27	5.62	25.22	276	0.06
20	12.26	33.27	5.62	276	30	12.08	33.30	5.25	25.27	271	0.08
25	12.14	33.28	5.34	273	50	11.27	33.34	4.04	25.45	254	0.14
30	12.08	33.30	5.25	271	75	10.36	33.66	3.40	25.86	214	0.19
35	11.96	33.31	5.11	267	100	10.05	33.78	2.86	26.01	200	0.25
45	11.55	33.31	4.36	260							
55	11.00	33.40	3.82	240							
65	10.66	33.55	3.54	228							
80	10.20	33.71	3.33	208							
101	10.04	33.78	2.85	200							
124	9.88	33.86	2.61	92							

CREST; February 11, 1955; 0816, 0830 GCT; 31°40.5'N, 116°47'W; sounding, 245 fm; wind, 060°, force 1; weather, clear; sea, moderate; wire angle, 02°, 03°.

100.30

0	12.8	33.33	6.90	282	0	12.8	33.33	6.90	25.16	282	0.00
10	12.90	33.32	6.72	284	10	12.90	33.32	6.72	25.13	284	0.03
15	12.84	33.30	6.57	285	20	12.82	33.32	6.80	25.15	282	0.06
					30	12.77	33.36	6.62	25.19	279	0.08
20	12.82	33.32	6.80	282	50	11.40	33.34	4.60	25.43	256	0.14
25	12.80	33.36	6.54	279	75	10.25	33.66	3.26	25.88	213	0.20
31	12.76	33.36	6.62	278	100	9.98	33.86	2.72	26.09	194	0.25
41	12.13	33.39	5.30	265	150	9.60	34.03	2.25	26.29	174	0.34
51	11.35	33.34	4.54	255	200	9.50	34.20	1.76	26.43	160	0.43
66	10.44	33.56	3.46	224	250	9.18	34.27	0.96	26.53	151	0.51
81	10.15	33.72a)	3.03	207	300	8.68	34.30		26.64	141	0.58
101	9.98	33.86a)	2.71	194	400	7.82	34.33		26.79	127	0.72
126	9.81	33.94	2.46	185							
166	9.46	34.10	2.14	168							
205	9.49	34.21	1.69	160							
253	9.15	34.27	0.94	150							
326	8.41	34.31	1.43u	136							
406	7.78	34.33	0.82	126							

CREST; February 11, 1955; 1336 GCT; 31°21'N, 117°27'W; sounding, 1070 fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 04°.

100.40

0	13.8	33.36	6.31	298	0	13.8	33.36	6.31	24.99	298	0.00
10	13.61	33.35	6.52	295	10	13.61	33.35	6.52	25.02	295	0.03
25	13.43	33.34	6.07	293	20	13.48	33.34	6.26	25.03	294	0.06
51	12.21	33.31	4.96	272	30	13.38	33.34	5.83	25.05	292	0.09
61	11.44	33.35	4.90	256	50	12.25	33.31	4.96	25.25	273	0.14
71	10.88	33.40	4.00	242	75	10.78	33.43	3.98	25.62	238	0.21
82	10.66	33.51	3.93	230	100	9.93	33.59	3.43	25.88	212	0.27
102	9.88	33.59	3.41	212	150	9.26	33.99	2.48	26.31	172	0.36
127	9.72	33.82	2.97	192	200	8.33	34.06	1.69	26.51	153	0.44
158	9.10	34.02	2.36	168	250	8.02	34.19	1.42	26.65	140	0.52
206	8.25	34.07	2.73r	152	300	7.62	34.24	1.21	26.76	130	0.59
276	7.90	34.22	1.34	135	400	6.79	34.30	0.78	26.92	114	0.72
338p	7.12	34.26	1.02	122	500	6.39	34.35	0.34	27.01	106	0.83
517p	6.36	34.35	0.33	105	600	(5.98)	(34.38)	(0.33)	(27.09)	(98)	(0.94)
812p	4.76	34.42	0.39	81	700	(5.43)	(34.40)	(0.36)	(27.18)	(90)	(1.04)
					800	(4.83)	(34.42)	(0.39)	(27.26)	(82)	(1.13)

a) Salinity samples at 81 and 101 meters appear to have been reversed; they are assumed to be listed in correct order.

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5502

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m	

100.50

CREST; February 11, 1955; 1913 GCT; 31°00'N, 118°07'W; sounding, 950 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 01°.

0	14.7	33.32	6.19	319	0	14.7	33.32	6.19	24.77	319	0.00
10	14.22	33.36	6.29	307	10	14.22	33.36	6.29	24.89	307	0.03
25	13.97	33.32	6.24	304	20	14.04	33.33	6.26	24.91	305	0.06
50	13.12	33.30	5.87	290	30	13.83	33.31	6.18	24.94	302	0.09
60	12.80	33.38	5.84	278	50	13.12	33.30	5.87	25.07	290	0.15
71	12.17	33.28	5.19	273	75	11.80	33.29	5.08	25.32	267	0.22
81	11.50	33.31	5.01	260	100	10.62	33.39	4.49	25.61	239	0.28
101	10.60	33.39	4.47	238	150	9.41	33.97	2.65	26.26	177	0.39
126	9.34	33.74	3.28	192	200	8.80	34.12	2.21	26.48	156	0.48
155	9.42	34.00	2.54	174	250	8.64	34.23	1.45	26.60	145	0.55
204	8.76	34.13	2.17	154	300	8.32	34.31	1.02	26.71	134	0.62
274	8.58	34.32	1.06	138	400	6.96	34.27	0.78	26.87	119	0.76
378	7.17	34.27	0.86	122	500	6.19	34.30	0.41	26.99	107	0.87
509	6.14	34.30	0.40	107	600	5.61	34.37	0.32	27.12	95	0.98
690	5.14	34.43	0.27	85	700	5.12	34.43	0.27	27.24	84	1.08
913	4.31	34.55	0.51	68	800	4.68	34.48	0.37	27.32	76	1.16

100.60

CREST; February 12, 1955; 0030 GCT; 30.40'N, 118°47'W; sounding, 1650 fm; wind, 320°, force 2; weather, fog; sea, slight; wire angle, 02°.

0	14.7	33.40	6.05	313	0	14.7	33.40	6.05	24.83	313	0.00
10	14.20	33.39	6.18	304	10	14.20	33.39	6.18	24.92	304	0.03
25	13.88	33.36	6.16	300	20	13.97	33.36	6.17	24.95	301	0.06
51	13.56	33.37	6.06	293	30	13.82	33.36	6.14	24.98	298	0.09
61	13.18	33.39	5.83	284	50	13.57	33.37	6.07	25.04	293	0.15
71	12.02	33.28	5.08	271	75	11.60	33.29	4.84	25.35	263	0.22
82	11.16	33.33	4.56	252	100	10.40	33.48	3.99	25.72	228	0.28
102	10.36	33.49	3.96	227	150	8.94	33.85	3.20	26.25	178	0.38
127	9.62	33.71	3.47	199	200	8.33	34.03	2.66	26.48	156	0.47
157	8.78	33.88	3.13	173	250	7.74	34.08	2.04	26.61	144	0.55
208	8.24	34.04	2.60	153	300	7.12	34.13	1.45	26.73	132	0.62
277	7.40	34.11	1.68	137	400	6.46	34.22	0.91	26.89	117	0.75
379	6.57	34.19	1.00	120	500	6.10	34.44	0.33	27.12	96	0.86
509	6.02	34.45	0.29	94	600	5.60	34.45	0.29	27.19	89	0.96
691	5.10	34.45	0.39	83	700	5.05	34.45	0.40	27.25	83	1.05
914	4.20	34.50	0.51	70	800	4.60	34.47	0.46	27.32	76	1.13
1217	3.39	34.59	0.94	55	1000	3.96	34.53	0.63	27.44	65	1.29

100.70

CREST; February 12, 1955; 0616 GCT; 30°19'N, 119°26'W; sounding, 2100 fm; wind, 350°, force 2; weather, partly cloudy; sea, slight; wire angle, 08°.

0	15.2	33.39	6.03	324	0	15.2	33.39	6.03	24.71	324	0.00
10	15.06	33.40	5.61	321	10	15.06	33.40	5.61	24.75	321	0.03
25	15.04	33.40	5.60	320	20	15.05	33.40	5.60	24.75	321	0.06
50	14.79	33.35	5.95	319	30	15.02	33.39	5.61	24.76	320	0.10
61	14.23	33.27	5.83	317	50	14.79	33.35	5.95	24.77	319	0.16
71	13.16	33.15	5.69	301	75	13.14	33.24	5.60	25.03	294	0.24
81	13.12	33.29	5.50	290	100	10.76	33.21	5.04	25.45	254	0.31
100	10.76	33.21	5.04	254	150	8.96	33.59	3.74	26.05	197	0.42
124	9.46	33.47	4.34	214	200	8.17	33.89	2.91	26.40	164	0.51
153	8.91	33.61	3.70	195	250	7.40	33.96	2.20	26.57	148	0.59
202	8.16	33.89	2.90	164	300	7.08	34.06	1.50	26.68	137	0.67
271	7.08	33.99	1.87	142	400	6.98	34.27	0.61	26.87	119	0.80
373	7.18	34.27	0.70	122	500	6.10	34.27	0.44	26.99	108	0.92
500	6.10	34.27	0.44	108	600	5.54	34.33	0.36	27.11	97	1.03
681	5.15	34.40	0.32	88	700	5.06	34.41	0.32	27.22	86	1.12
901	4.28	34.52	0.50	70	800	4.64	34.48	0.41	27.32	76	1.21
1202	3.43	34.53	0.94	60	1000	3.98	34.53	0.65	27.43	66	1.37

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{3,10}^{-5}$	Z	T	S	O ₂	σ_t	$\delta T_{3,10}^{-5}$	ΔD
m	°C	‰	ml/L	cm ³ /g	m	°C	‰	ml/L	g/L	cm ³ /g	dyn. m

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CREST; February 12, 1955; 1156 GCT; 29°59'N, 120°05'W; sounding, 2200 fm; wind, 010°, force 2; weather, clear; sea, slight; wire angle, 05°.

100.80

0	14.3	33.30	7.55	312	0	14.3	33.30	7.55	24.84	312	0.00
10	14.22	33.27	6.03	313	10	14.22	33.27	6.03	24.83	313	0.03
25	13.99	33.23	6.00	311	20	14.04	33.24	6.01	24.84	312	0.06
50	13.74	33.24	5.88	306	30	13.95	33.23	5.98	24.85	311	0.09
61	13.49	33.26	5.92	300	50	13.74	33.24	5.88	24.90	306	0.16
72	12.53	33.19	5.77	287	75	12.34	33.19	5.72	25.13	284	0.23
82	12.12	33.18	5.66	280	100	10.81	33.17	5.17	25.41	258	0.30
101	10.78	33.17	5.17	257	150	9.27	33.47	4.14	25.90	211	0.42
125	10.22	33.22	4.87	244	200	8.46	33.94	2.91	26.39	164	0.51
155	9.11	33.55	3.99	203	250	7.97	34.00	2.87	26.52	153	0.59
202	8.44	33.94	2.90	164	300	7.53	34.09	2.30	26.65	140	0.67
269	7.78	34.02	2.85	149	400	6.81	34.26	0.76	26.88	118	0.80
371	7.02	34.24	0.90	122	500	6.08	34.34	0.39	27.04	103	0.92
496	6.11	34.34	0.40	103	600	5.52	34.42	0.33	27.18	90	1.02
675	5.18	34.45	0.33	84	700	5.07	34.46	0.33	27.26	82	1.11
902	4.36	34.51	0.47	71	800	4.68	34.49	0.38	27.32	76	1.20
1206	3.50	34.56	0.82	59	1000	4.06	34.53	0.58	27.43	66	1.36

CREST; February 13, 1955; 1619 GCT; 31°05'N, 116°25.5'W; sounding, 43 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°.

103.30

0	14.4	33.42	6.03	306	0	14.4	33.42	6.03	24.90	306	0.00
10	14.30	33.38	5.95	307	10	14.30	33.38	5.95	24.89	307	0.03
15	13.94	33.36	6.02	301	20	13.53	33.33	5.90	25.02	295	0.06
20	13.53	33.33	5.90	295	30	12.90	33.33	6.68	25.14	283	0.09
25	13.38	33.30	6.22	295	50	11.38	33.48	4.19	25.54	245	0.14
30	12.90	33.33	6.68	283							
35	12.22	33.32	5.50	271							
40	11.71	33.42	4.88	255							
50	11.38	33.48a)	4.19	245							
60	10.97	33.57	3.42	231							

CREST; February 13, 1955; 1307 GCT; 30°57'N, 116°45.5'W; sounding, 1000 fm; wind, 350°, force 2; weather, clear; sea, slight; wire angle, 09°.

103.35

0	14.9	33.46	5.95	313	0	14.9	33.46	5.95	24.83	313	0.00
10	14.75	33.43	5.99	312	10	14.75	33.43	5.99	24.84	312	0.03
31	14.69	33.45	6.03	310	20	14.73	33.44	6.01	24.85	311	0.06
41	14.36	33.42	6.01	305	30	14.72	33.45	6.03	24.86	310	0.09
51	14.28	33.39	6.03	305	50	14.29	33.39	6.03	24.91	305	0.16
61	14.08	33.36	5.93	304	75	12.26	33.31	5.17	25.24	273	0.23
71	12.87	33.30	5.47	285	100	10.95	33.48	4.00	25.62	238	0.29
81	11.49	33.34	4.76	257	150	8.96	33.81	3.38	26.22	181	0.40
90	11.38	33.48	4.25	245	200	8.47	34.02	2.55	26.46	158	0.48
99	11.01	33.48	4.02	239	250	8.21	34.16	1.63	26.60	145	0.56
124	9.62	33.62	3.77	206	300	7.87	34.22	1.23	26.70	135	0.64
152	8.92	33.82	3.37	180	400	7.12	34.29	0.75	26.86	120	0.77
199	8.49	34.02	2.62	158	500	6.39	34.34	0.45	27.00	107	0.89
256	8.19	34.17	1.59	143	600	(5.79)	(34.36)	(0.37)	(27.10)	(97)	(0.99)
356	7.46	34.26	0.93	126							
473	6.57	34.33	0.50	110							
595	5.81	34.36	0.37	97							

a) Loose bottle cap; value falls on property curve.

S10

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

103.40

CREST; February 13, 1955; 0921 GCT; 30°47.5'N, 117°06'W; sounding, 930 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 06°.

0	15.2	33.42	5.88	322	0	15.2	33.42	5.88	24.73	322	0.00	
10	15.12	33.43	6.03	320	10	15.12	33.43	6.03	24.76	320	0.03	
30	14.97	33.46	6.82u	314	20	15.04	33.45		24.80	316	0.06	
40	14.93	33.45	5.93	314	30	14.97	33.46		24.82	314	0.10	
50	14.92	33.44	5.85	315	50	14.92	33.44	5.85	24.81	315	0.16	
60	14.88	33.46	5.73	313	75	12.20	33.33	4.80	25.27	271	0.23	
70	13.06	33.34	5.08	286	100	10.40	33.40	4.20	25.65	234	0.30	
80	11.58	33.32	4.58	260	150	8.70	33.80	3.30	26.25	178	0.40	
90	11.12	33.36	4.39	249	200	8.32	34.04	2.59	26.50	154	0.48	
100	10.40	33.40	4.20	234	250	8.02	34.18	1.53	26.65	140	0.56	
125	9.33	33.58	3.76	204	300	7.52	34.20	1.30	26.74	131	0.63	
155	8.60	33.86	3.22	172	400	6.66	34.25	0.78	26.89	117	0.76	
204	8.30	34.05	2.53	154	500	6.17	34.31	0.40	27.00	106	0.88	
246	8.06	34.18	1.56	141	600	5.65	34.43	0.41	27.17	91	0.98	
365	6.88	34.23	1.01	121								
483	6.22	34.30	0.40	108								
608	5.60	34.45	0.41	89								

103.50

CREST; February 13, 1955; 0340 GCT; 30°25.5'N, 117°45'W; sounding, 1550 fm; wind, 340°, force 3; weather, missing; sea, slight; wire angle, 08°.

0	14.7	33.38	5.98	315	0	14.7	33.38	5.98	24.81	315	0.00	
10	14.52	33.40	6.03	310	10	14.52	33.40	6.03	24.86	310	0.03	
30	14.05	33.37	5.96	302	20	14.27	33.39	6.02	24.90	306	0.06	
40	13.98	33.39	5.90	300	30	14.05	33.37	5.96	24.94	302	0.09	
51	13.96	33.38	5.77	300	50	13.98	33.38	5.81	24.97	300	0.15	
61	11.29	33.24	4.65	261	75	10.70	33.25	4.45	25.49	250	0.22	
71	10.79	33.19	4.62	256	100	10.08	33.48	3.92	25.77	224	0.28	
81	10.58	33.33	4.26	243	150	8.64	33.83	3.10	26.28	175	0.38	
92	10.20	33.47	4.04	226	200	8.06	33.94	2.69	26.45	159	0.47	
102	10.05	33.48	3.88	223	250	7.50	33.98	2.15	26.56	148	0.54	
125	9.24	33.75	3.37	190	300	7.22	34.09	1.82	26.69	136	0.62	
155	8.54	33.84	3.03	173	400	6.67	34.27	0.62	26.90	116	0.75	
203	8.03	33.94	2.64	158	500	5.95	34.32	0.33	27.05	102	0.86	
262	7.38	34.00	2.03	145	600	5.24	34.35	0.32	27.15	92	0.97	
366	6.95	34.24	0.75	121								
484	6.01	34.32	0.35	103								
608	5.18	34.35	0.31	91								

103.60

CREST; February 12, 1955; 2217 GCT; 30°06'N, 118°24'W; sounding, 1900 fm; wind, 350°, force 2; weather, partly cloudy; sea, moderate; wire angle, 09°.

0	14.8	33.43	6.03	313	0	14.8	33.43	6.03	24.83	313	0.00	
10	14.34	33.38	6.00	308	10	14.34	33.38	6.00	24.89	308	0.03	
30	14.04	33.34	6.00	305	20	14.18	33.36	6.00	24.90	306	0.06	
40	13.93	33.34	5.81	302	30	14.04	33.34	6.00	24.92	305	0.09	
50	13.94	33.35	5.84	302	50	13.94	33.35	5.84	24.95	302	0.15	
59	13.69	33.31	5.67	300	75	11.00	33.31	4.42	25.49	250	0.22	
69	11.32	33.26	4.62	260	100	9.50	33.54	3.68	25.91	210	0.28	
79	10.86	33.35	4.33	246	150	8.62	33.86	2.90	26.31	172	0.38	
89	10.50	33.41	4.17	235	200	7.92	33.98	2.76	26.50	154	0.46	
99	9.55	33.53	3.70	211	250	7.60	34.03	2.38	26.59	146	0.54	
122	8.96	33.70	3.24	189	300	7.20	34.10	1.73	26.70	135	0.61	
150	8.62	33.86	2.90	172	400	6.26	34.19	0.70	26.90	116	0.74	
198	7.94	33.98	2.78	154	500	5.61	34.25	0.59	27.03	104	0.86	
254	7.57	34.04	2.36	144	600	(5.43)	(34.41)	(0.89)	(27.18)	(90)	(0.96)	
353	6.70	34.17	0.98	124								
468	5.77	34.23	0.45	107								
589	5.46	34.38	0.85	92								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{3,5}$	Z	T	S	O ₂	σ_t	$\delta T_{3,5}$	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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CREST; February 13, 1955; 2115 GCT; 30°26'N, 116°11.5'W; sounding, 360 fm; wind, 350°, force 1; weather, fog; sea, slight; wire angle, 07°.

107.32

0	14.46	33.38	6.27	310	0	14.46	33.38	6.27	24.86	310	0.00
10	13.90	33.36	6.53	300	10	13.90	33.36	6.53	24.96	300	0.03
15	13.54	33.30	6.64	298	20	13.02	33.32	6.34	25.11	286	0.06
20	13.02	33.32	6.34	286	30	12.02	33.31	5.22	25.29	269	0.09
25	12.29	33.34	5.46	272	50	11.02	33.38	4.49	25.53	246	0.14
30	12.02	33.31	5.22	269	75	10.38	33.42	4.08	25.68	232	0.20
35	11.62	33.32	4.92	261	100	10.09	33.75	3.10	25.98	204	0.25
45	11.25	33.36	4.69	251	150	9.76	34.12	2.03	26.33	170	0.35
55	10.84	33.40	4.34	242	200	10.03	34.37	1.03	26.48	156	0.43
70	10.50	33.41	4.27	235	250	(9.69)	(34.44)	(0.77)	(26.59)	(146)	(0.51)
85	10.15	33.60	3.63	216							
105	10.06	33.77	3.02	202							
133	9.28	33.88	2.99	181							
166	10.20	34.32	1.16	163							
199	10.03	34.37	1.04	156							
249	9.70	34.44	0.77	146							

CREST; February 13, 1955; 2336 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 360°, force 3; weather, missing; sea, moderate; wire angle, 06°.

107.35

0	15.4	33.58	5.81	315	0	15.4	33.58	5.81	24.81	315	0.00
10	14.93	33.34	5.89	322	10	14.93	33.34	5.89	24.73	322	0.03
30	14.80	33.32	5.87	322	20	14.86	33.32	5.88	24.73	322	0.06
40	14.54	33.33	6.11	315	30	14.80	33.32	5.87	24.74	322	0.10
50	14.01	33.33	6.25	305	50	14.01	33.33	6.25	24.91	305	0.16
60	13.26	33.30	6.23	302	75	13.00	33.30	6.15	25.09	288	0.23
70	13.28	33.26	6.17	296	100	10.40	33.40	4.20	25.65	234	0.30
81	12.63	33.38	6.11	275	150	10.48	34.00	2.15	26.11	191	0.41
91	11.38	33.30	4.65	258	200	10.20	34.27	1.51	26.37	167	0.50
101	10.39	33.40	4.19	234	250	9.45	34.33	0.95	26.54	150	0.58
126	10.19	33.68	2.04u	210	300	8.78	34.33	0.82	26.65	140	0.66
155	10.50	34.03	2.04	190	400	7.56	34.30	0.65	26.80	125	0.79
204	10.16	34.28	1.45	165	500	6.52	34.28	0.44	26.93	113	0.92
263	9.26	34.33	0.87	147	600	5.87	34.36	0.39	27.09	98	1.03
365	8.00	34.31	0.73	130							
483	6.67	34.28	0.48	115							
608	5.82	34.37	0.39	97							

CREST; February 14, 1955; 0245 GCT; 30°10'N, 116°43.5'W; sounding, 1540 fm; wind, 020°, force 2; weather, fog; sea, slight; wire angle, 04°.

107.40

0	14.9	33.38	6.30	319	0	14.9	33.38	6.30	24.77	319	0.00
10	14.89	33.38	5.92	318	10	14.89	33.38	5.92	24.78	318	0.03
30	14.43	33.32	5.97	314	20	14.65	33.35	5.96	24.80	316	0.06
40	14.32	33.32	5.96	311	30	14.43	33.32	5.97	24.82	314	0.10
51	14.24	33.34	5.93	309	50	14.24	33.34	5.93	24.87	309	0.16
61	14.14	33.30	5.89	309	75	13.12	33.36	5.49	25.12	286	0.23
71	13.69	33.40	5.65	293	100	10.58	33.24	4.54	25.50	249	0.30
81	12.03	33.22	5.17	276	150	9.10	33.72	3.48	26.12	190	0.41
91	11.26	33.18	4.90	265	200	9.97	34.25	1.17	26.39	165	0.50
102	10.44	33.26	4.44	246	250	9.06	34.31	1.09	26.59	146	0.58
126	9.48	33.56	3.62	208	300	8.54	34.39	0.62	26.74	132	0.65
155	9.07	33.75	3.46	187							
203	10.02	34.30	1.08	162							
261	8.87	34.31	1.10	143							
287p	8.67	34.40	0.63	133							
365	7.80	34.31	0.70	128							

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

10750

CREST; February 14, 1955; 0807 GCT; 29°49'N, 117°24'W; sounding, 1410 fm; wind, 040°, force 1; weather, partly cloudy; sea, smooth; wire angle, 03°.

0	15.3	33.36	5.85	329	0	15.3	33.36	5.85	24.66	329	0.00
10	15.02	33.26	5.83	330	10	15.02	33.26	5.83	24.65	330	0.03
30	14.50	33.24	6.00	321	20	14.72	33.24	5.93	24.70	325	0.07
40	14.38	33.22	5.92	320	30	14.50	33.24	6.00	24.74	321	0.10
51	14.20	33.25	5.93	314	50	14.22	33.25	5.93	24.82	314	0.16
61	14.16	33.28	5.83	311	75	13.37	33.22	5.74	24.96	300	0.24
70	13.86	33.28	5.84	305	100	10.80	33.18	4.98	25.42	257	0.31
81	12.64	33.13	5.59	294	150	8.97	33.67	3.59	26.11	191	0.42
91	11.39	33.11	5.40	272	200	8.39	34.03	2.50	26.47	157	0.51
100	10.80	33.18	4.98	257	250	7.72	34.05	2.24	26.59	146	0.59
124	9.84	33.47	3.97	220	300	7.38	34.11	1.68	26.69	136	0.66
154	8.89	33.69	3.55	189	400	6.71	34.26	0.75	26.89	117	0.79
197	8.42	34.02	2.55	158	500	5.99	34.35	0.38	27.06	101	0.91
267	7.59	34.06	2.18	144	600	5.52	34.37	0.25	27.13	94	1.01
364	7.00	34.21	0.94	124							
482	6.10	34.34	0.41	103							
606	5.50	34.37	0.24	94							

10760

CREST; February 14, 1955; 1312 GCT; 29°29'N, 118°03'W; sounding, 2050 fm; wind, 100°, force 2; weather, missing; sea, slight; wire angle, 00°.

0	14.8	33.30	6.03	323	0	14.8	33.30	6.03	24.72	323	0.00
10	14.71	33.30	5.88	321	10	14.71	33.30	5.88	24.74	321	0.03
30	14.43	33.22	5.97	321	20	14.59	33.26	5.93	24.74	321	0.06
40	14.34	33.23	5.96	318	30	14.43	33.22	5.97	24.74	321	0.10
50	14.28	33.26	5.88	315	50	14.28	33.26	5.88	24.81	315	0.16
61	14.22	33.23	5.71	316	75	14.32	33.30	5.84	24.83	313	0.24
71	14.36	33.30	5.86	313	100	10.80	33.20	5.04	25.43	256	0.31
81	13.64	33.22	5.74	306	150	9.31	33.70	3.61	26.07	195	0.42
91	11.80	33.14	5.46	277	200	8.80	33.96	2.54	26.36	167	0.52
101	10.69	33.21	4.99	253	250	8.39	34.15	1.90	26.57	147	0.60
126	9.54	33.44	4.18	218	300	7.98	34.20	1.47	26.66	138	0.67
157	9.24	33.73	3.46	192	400	7.14	34.25	0.81	26.83	123	0.81
205	8.74	33.98	2.45	165	500	6.28	34.31	0.45	26.99	108	0.93
264	8.28	34.17	1.76	145	600	5.47	34.33	0.34	27.11	96	1.04
366	7.42	34.23	0.96	128							
484	6.42	34.30	0.48	110							
610	5.40	34.33	0.33	95							

10760

CREST; February 14, 1955; 1437 GCT; 29°29'N, 118°03'W; sounding, 2050 fm; wind, 100°, force 2; weather, cloudy; sea, slight; wire angle, 00°.

0	14.7				0	14.7					
10	14.69				10	14.69					
30	14.44				20	14.59					
45	14.32				30	14.44					
60	14.24				50	14.29					
80	13.45				75	13.78					
101	11.12				100	11.24					
126	9.80				150	9.26					
141	9.26				200	8.82					
155	9.26				250	8.24					
170	9.24										
184	9.01										
199	8.82										
214	8.72										
228	8.35										
243	8.28										
252	8.23										

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	dyn. m

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CREST; February 16, 1955; 0541 GCT; 29°50.5'N, 115°53'W; sounding, 50 fm; wind, 340°, force 4; weather, clear; sea, rough; wire angle, 09°.

110.33

0	14.5	33.33	6.07	314	0	14.5	33.33	6.07	24.82	314	0.00
10	14.13	33.38	6.14	303	10	14.13	33.38	6.14	24.93	303	0.03
15	13.73	33.30	6.34	301	20	13.64	33.30	6.10	24.97	300	0.06
20	13.64	33.30	6.10	300	30	13.28	33.37	5.87	25.09	288	0.09
25	13.48	33.36	6.07	292	50	11.80	33.32	4.65	25.34	264	0.15
30	13.28	33.37	5.87	288	75	(10.97)	(33.37)	(3.89)	(25.54)	(246)	(0.21)
35	13.04	33.37	5.69	283							
45	12.09	33.31	4.97	270							
55	11.60	33.35	4.46	255							
70	11.10	33.37	4.00	248							

CREST; February 16, 1955; 0357 GCT; 29°46'N, 116°00'W; sounding, 650 fm; wind, 350°, force 4; weather, clear; sea, rough; wire angle, 09°.

110.35

0	15.1	33.41	5.70	321	0	15.1	33.41	5.70	24.74	321	0.00
10	14.94	33.40	5.75	318	10	14.94	33.40	5.75	24.77	318	0.03
30	12.62	33.26	5.37	284	20	13.81	33.31	5.67	24.95	302	0.06
40	11.50	33.31	4.47	260	30	12.62	33.26	5.37	25.14	284	0.09
51	10.87	33.45	3.81	238	50	10.91	33.44	3.86	25.60	240	0.14
61	10.69	33.54	3.38	229	75	10.56	33.71	3.02	25.87	214	0.20
71	10.58	33.68	3.10	216	100	10.59	33.84	2.42	25.96	205	0.26
81	10.55	33.74	2.95	212	150	10.49	34.16	1.53	26.23	180	0.35
91	10.55	33.76	2.79	210	200	10.22	34.34	0.96	26.42	162	0.44
102	10.60	33.85	2.37	204	250	9.75	34.43	0.75	26.57	148	0.52
125	10.56	34.01	2.00	192	300	9.47	34.43	0.60	26.62	143	0.59
155	10.48	34.18	1.42	178	400	8.37	34.43	0.45	26.80	126	0.73
202	10.21	34.34	0.95	162	500	6.86	34.44	0.29	27.02	105	0.85
259	9.68	34.43	0.71	146	600	6.24	34.41	0.22	27.07	100	0.96
361	9.05	34.42	0.52	137							
478	7.05	34.45	0.32	107							
602	6.23	34.41	0.22	100							

CREST; February 16, 1955; 0020 GCT; 29°36.5'N, 116°19.5'W; sounding, 1380 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 18°.

110.40

0	15.4	33.41	5.86	327	0	15.4	33.41	5.86	24.68	327	0.00
10	15.20	33.40	5.81	324	10	15.20	33.40	5.81	24.72	324	0.03
25	15.10	33.36	5.77	325	20	15.12	33.37	5.78	24.70	325	0.06
50	14.83	33.46	5.71	312	30	15.08	33.36	5.75	24.72	324	0.10
59	14.02	33.31	5.87	306	50	14.83	33.46	5.71	24.84	312	0.16
69	13.49	33.26	5.70	300	75	12.66	33.25	5.12	25.12	285	0.24
79	11.78	33.25	4.74	269	100	10.96	33.50	3.56	25.63	236	0.30
98	10.94	33.48	3.64	237	150	10.31	33.96	2.29	26.10	192	0.41
123	10.81	33.73	2.45	217	200	9.82	34.18	1.94	26.36	168	0.50
152	10.29	33.97	2.28	190	250	9.28	34.29	1.00	26.54	150	0.58
197	9.88	34.17	1.99	169	300	8.91	34.33	0.78	26.63	142	0.66
260	9.20	34.31	0.89	148	400	7.97	34.34	0.54	26.78	127	0.80
355	8.52	34.34	0.68	135	500	6.85	34.34	0.27	26.94	112	0.92
473	7.12	34.34	0.29	116	600	6.02	34.35	0.24	27.06	101	1.04
643	5.75	34.36	0.24	97	700	5.43	34.38	0.25	27.16	92	1.14
855	4.73	34.46	0.31	78	800	4.98	34.44	0.28	27.26	82	1.23
1153	3.72	34.54	0.64	62	1000	4.21	34.50	0.45	27.39	70	1.40

S10

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

110.50

CREST; February 15, 1955; 1841 GCT; 29°18'N, 117°00'W; sounding, 1575 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 02°.

0	15.7	33.35	5.76	338	0	15.7	33.35	5.76	24.57	338	0.00
9	15.43	33.40	5.65	328	10	15.43	33.40	5.65	24.67	328	0.03
26	15.43	33.44	5.65	326	20	15.43	33.43	5.65	24.69	326	0.07
56	15.20	33.45	5.71	320	30	15.41	33.45	5.66	24.70	325	0.10
66	15.14	33.41	5.70	322	50	15.24	33.45	5.70	24.74	321	0.16
76	15.06	33.41	5.60	320	75	15.07	33.41	5.62	24.75	320	0.24
91	13.23	33.29	5.10	293	100	12.34	33.34	4.42	25.26	272	0.32
112	11.60	33.48	3.60	249	150	11.19	33.87	2.07	25.88	213	0.44
137	11.31	33.80	2.28	220	200	10.52	34.14	1.56	26.21	181	0.54
168	11.00	33.96	1.85	203	250	9.76	34.26	1.26	26.44	160	0.63
221	10.17	34.22	1.41	170	300	9.12	34.29	1.03	26.56	148	0.71
300	9.12	34.29	1.03	148	400	8.03	34.33	0.59	26.76	129	0.85
409	7.94	34.33	0.55	128	500	7.04	34.35	0.32	26.92	114	0.98
552	6.52	34.36	0.25	107	600	6.19	34.37	0.24	27.06	102	1.03
744	5.32	34.42	0.24	88	700	5.59	34.40	0.24	27.16	92	1.14
982	4.29	34.50	0.44	71	800	5.07	34.44	0.27	27.26	82	1.24
1290	3.42	34.56	0.87	58	1000	4.23	34.51	0.45	27.39	70	1.41

110.60

CREST; February 15, 1955; 1254 GCT; 28°56'N, 117°39'W; sounding, 1950 fm; wind, 360°, force 4; weather, missing; sea, rough; wire angle, 18°.

0	15.2	33.39	5.84	324	0	15.2	33.39	5.84	24.71	324	0.00
10	14.98	33.42	5.87	318	10	14.98	33.42	5.87	24.78	318	0.03
25	14.73	33.37	5.80	316	20	14.80	33.38	5.82	24.79	316	0.06
54	13.94	33.30	5.66	306	30	14.63	33.34	5.77	24.79	316	0.10
64	13.24	33.26	5.40	295	50	14.32	33.31	5.70	24.84	312	0.16
73	12.52	33.29	4.94	279	75	12.37	33.29	4.89	25.22	276	0.23
87	11.44	33.30	4.62	260	100	10.33	33.36	4.45	25.63	237	0.30
107	9.94	33.40	4.34	227	150	10.03	33.98	2.58	26.17	186	0.40
130	9.96	33.79	3.39	198	200	9.58	34.21	1.76	26.43	161	0.49
158	10.04	34.08	2.22	178	250	8.92	34.28	1.30	26.60	145	0.57
209	9.45	34.23	1.67	157	300	8.38	34.33	0.95	26.71	134	0.64
283	8.54	34.32	1.07	137	400	7.52	34.37	0.52	26.87	119	0.77
385	7.65	34.37	0.56	121	500	6.62	34.38	0.32	27.00	107	0.89
522	6.41	34.38	0.30	104	600	5.90	34.39	0.30	27.11	96	1.00
705	5.19	34.42	0.33	86	700	5.20	34.42	0.32	27.21	87	1.10
934	4.22	34.49	0.51	72	800	4.73	34.45	0.38	27.29	79	1.19
1235	3.44	34.53	0.88	60	1000	4.05	34.50	0.58	27.40	68	1.35

110.70

CREST; February 15, 1955; 0635 GCT; 28°36.5'N, 118°19'W; sounding, 1975 fm; wind, 290°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	14.8	33.33	5.95	321	0	14.8	33.33	5.95	24.75	321	0.00
10	14.72	33.30	5.83	321	10	14.72	33.30	5.83	24.74	321	0.03
25	14.46	33.30	5.80	316	20	14.52	33.30	5.81	24.78	317	0.06
50	14.28	33.35	5.72	308	30	14.39	33.34	5.79	24.84	312	0.10
60	14.25	33.32	5.71	310	50	14.28	33.35	5.72	24.88	308	0.16
69	14.12	33.25	5.74	312	75	13.03	33.20	5.66	25.01	296	0.23
80	12.17	33.18	5.46	281	100	11.01	33.29	4.65	25.46	253	0.30
100	11.01	33.29	4.65	253	150	9.72	33.86	2.69	26.13	190	0.41
126	10.04	33.51	3.92	220	200	9.02	33.95	2.52	26.32	172	0.51
156	9.67	33.87	2.60	188	250	8.84	34.13	1.86	26.48	156	0.59
207	8.96	33.97	2.50	169	300	8.53	34.20	1.42	26.60	145	0.67
275	8.78	34.19	1.54	155	400	7.40	34.25	0.99	26.79	126	0.81
378	7.60	34.24	1.09	130	500	6.60	34.30	0.47	26.94	112	0.93
505	6.56	34.30	0.45	112	600	5.88	34.33	0.31	27.06	101	1.05
686	5.34	34.36	0.24	92	700	5.26	34.37	0.24	27.16	91	1.15
907	4.36	34.47	0.43	74	800	4.79	34.42	0.32	27.26	82	1.24
1208	3.54	34.52	0.74	62	1000	4.07	34.49	0.55	27.39	69	1.41

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

S10

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CREST; February 15, 1955; 0106 GCT; 28°16.5'N, 118°52.5'W; sounding, 2200 fm; wind, 060°, force 4; weather, cloudy; sea, very rough; wire angle, 20°.

110.80

0	15.4	33.35a)	5.37	332	0	15.4	33.35	5.37	24.63	332	0.00
10	15.30	33.32	5.66	332	10	15.30	33.32	5.66	24.63	332	0.03
25	15.19	33.26	5.61	334	20	15.22	33.27	5.63	24.61	334	0.07
48	15.08	33.28	5.52	330	30	15.17	33.27	5.58	24.64	331	0.10
58	15.08	33.29	5.71	329	50	15.08	33.28	5.53	24.66	330	0.17
67	15.02	33.29	5.82	328	75	15.02	33.30	5.66	24.68	327	0.25
76	15.02	33.30	5.65	327	100	12.73	33.21	5.38	25.08	289	0.33
94	13.48	33.20a)	5.45	304	150	9.42	33.48	4.27	25.88	213	0.45
116	11.14	33.28	5.17	256	200	8.78	33.95	3.50	26.35	168	0.55
142	9.66	33.40	4.40	223	250	8.66	34.05	2.47	26.45	159	0.63
187	8.88	33.82	3.77	179	300	8.19	34.16	1.78	26.60	144	0.71
248	8.66	34.05	2.50	159	400	7.41	34.33	0.79	26.85	121	0.85
342	7.83	34.23	1.23	134	500	6.72	34.40	0.30	27.00	107	0.97
459	7.02	34.39	0.36	111	600	6.00	34.42	0.24	27.12	96	1.08
629	5.80	34.43	0.23	92	700	5.37	34.45	0.24	27.22	86	1.17
844	4.67	34.48	0.32	76	800	4.86	34.47	0.28	27.29	79	1.26
1145	3.70	34.53	0.70	63	1000	4.13	34.51	0.51	27.40	69	1.43

CREST; February 16, 1955; 1055 GCT; 29°22.5'N, 115°17.5'W; sounding, 30 fm; wind, 340°, force 4; weather, missing; sea, smooth; wire angle, 02°.

113.30

0	13.57	33.41	6.10	290	0	13.57	33.41	6.10	25.07	290	0.00
10	13.59	33.40	6.26	291	10	13.59	33.40	6.26	25.06	291	0.03
15	13.56	33.44	6.21	288	20	13.38	33.45	6.03	25.14	284	0.06
20	13.38	33.45	6.03	284	30	12.55	33.38	5.21	25.25	273	0.09
25	12.73	33.33	6.24	280							
30	12.55	33.38	5.21	273							
35	12.12	33.41	4.60	263							
43	12.03	33.57	2.96	250							

CREST; February 16, 1955; 1356 GCT; 29°12'N, 115°39'W; sounding, 780 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 22°.

113.35

0	14.7	33.38	6.02	315	0	14.7	33.38	6.02	24.81	315	0.00
10	14.56	33.34	6.07	315	10	14.56	33.34	6.07	24.81	315	0.03
29	14.48	33.35	5.83	312	20	14.49	33.34	5.95	24.83	313	0.06
38	13.93	33.30	6.08	305	30	14.47	33.35	5.82	24.84	312	0.09
48	12.99	33.30	5.48	287	50	12.93	33.31	5.43	25.12	286	0.15
57	12.79	33.33	5.04	281	75	11.25	33.43	4.02	25.53	247	0.22
67	12.05	33.40	4.56	262	100	10.55	33.71	3.13	25.87	214	0.28
76	11.22	33.43	3.99	246	150	10.57	34.19	1.56	26.23	180	0.38
85	11.05	33.48	3.57	239	200	10.16	34.41	1.22	26.48	156	0.46
94	10.50	33.58	3.38	223	250	9.72	34.47	0.64	26.60	144	0.54
116	10.82	34.04	1.91	194	300	9.03	34.42	0.67	26.68	137	0.61
142	10.66	34.14	1.64	184	400	7.91	34.40	0.46	26.83	122	0.75
186	10.24	34.32	1.32	164	500	6.97	34.40	0.33	26.97	110	0.87
228	10.00	34.48	0.64	148							
330	8.64	34.40	0.68	132							
441	7.52	34.40	0.38	117							
561	6.35	34.40	0.30	102							

a) Loose bottle cap; value falls on property curve.

SIO

CCOFI
5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{-3}	Z	T	S	O ₂	σ_t	δT_{-5}^{-3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

11340

CREST; February 16, 1955; 1730 GCT; 29°01.5'N, 115°59'W; sounding, 1000 fm; wind, 360°, force 4; weather, cloudy; sea, moderate; wire angle, 20°.

0	15.3	33.40	5.59	326	0	15.3	33.40	5.59	24.69	326	0.00
10	15.08	33.38	5.70	323	10	15.08	33.38	5.70	24.72	323	0.03
29	15.06	33.41	5.69	320	20	15.07	33.41	5.70	24.74	321	0.06
43	14.82	33.32	5.56	318	30	15.04	33.41	5.68	24.76	320	0.10
53	13.61	33.32	5.85	298	50	13.98	33.33	5.79	24.92	304	0.16
63	13.12	33.30	5.76	290	75	12.80	33.30	5.61	25.14	284	0.23
73	12.89	33.30	5.74	285	100	10.62	33.43	4.00	25.64	236	0.30
82	12.13	33.31	5.03	270	150	9.42	33.85	2.90	26.17	185	0.40
96	10.82	33.35	4.26	245	200	9.57	34.21	1.50	26.43	160	0.49
105	10.46	33.54	3.70	225	250	9.33	34.38	0.85	26.60	145	0.57
128	10.15	33.79	2.83	201	300	8.79	34.38	0.62	26.69	136	0.64
156	9.32	33.87	2.90	182	400	7.59	34.35	0.41	26.84	122	0.78
205	9.57	34.25	1.38	158	500	6.62	34.36	0.28	26.98	108	0.90
263	9.22	34.39	0.76	142	600	5.91	34.41	0.25	27.12	95	1.00
369	7.90	34.35	0.48	126							
492	6.71	34.36	0.30	109							
623	5.75	34.42	0.25	92							

11345

CREST; February 16, 1955; 2048 GCT; 28°51'N, 116°17.5'W; sounding, 1480 fm; wind, 310°, force 5; weather, cloudy; sea, moderate; wire angle, 09°.

0	15.5	33.46	5.67	325	0	15.5	33.46	5.67	24.70	325	0.00
10	15.25	33.44	5.67	322	10	15.25	33.44	5.67	24.74	322	0.03
31	15.15	33.42	5.71	321	20	15.20	33.43	5.70	24.74	322	0.06
46	14.95	33.41	5.75	317	30	15.16	33.42	5.71	24.74	321	0.10
56	14.59	33.39	5.83	312	50	14.81	33.40	5.77	24.80	316	0.16
66	14.07	33.32	5.83	306	75	13.53	33.32	5.57	25.01	296	0.24
76	13.49	33.32	5.54	295	100	11.49	33.49	3.73	25.53	246	0.30
86	12.57	33.32	4.99	278	150	10.50	33.96	2.30	26.08	194	0.42
102	11.41	33.51	3.57	243	200	9.97	34.27	1.41	26.41	163	0.51
112	11.14	33.60	3.14	232	250	9.52	34.34	0.98	26.54	150	0.59
136	10.52	33.81	2.69	206	300	8.95	34.38	0.77	26.66	139	0.66
165	10.14	34.06	2.00	181	400	7.87	34.41	0.48	26.85	121	0.80
218	9.88	34.30	1.28	159	500	6.96	34.38	0.27	26.96	110	0.92
281	9.17	34.37	0.81	143	600	6.12	34.38	0.23	27.07	100	1.03
393	7.92	34.41	0.50	122							
520	6.79	34.38	0.26	109							
654	5.66	34.38	0.22	94							

11350

CREST; February 17, 1955; 0007 GCT; 28°40'N, 116°38'W; sounding, 1950 fm; wind, 340°, force 5; weather, cloudy; sea, moderate; wire angle, 20°.

0	15.5	33.38	5.79	331	0	15.5	33.38	5.79	24.64	331	0.00
10	15.18	33.43	5.73	321	10	15.18	33.43	5.73	24.75	321	0.03
20	14.69	33.37	5.79	315	20	14.69	33.37	5.79	24.81	315	0.06
40	14.46	33.35	5.82	312	30	14.55	33.36	5.80	24.82	314	0.10
50	14.33	33.34	5.82	310	50	14.33	33.34	5.82	24.86	310	0.16
60	14.10	33.36	5.68	304	75	12.78	33.30	4.92	25.14	283	0.23
69	13.75	33.42a)	5.31	293	100	10.63	33.49	3.78	25.68	232	0.30
79	12.29	33.25	4.70	278	150	10.58	34.06	1.54	26.14	188	0.40
88	11.56	33.27	4.36	263	200	10.07	34.24	1.46	26.36	167	0.49
98	10.75	33.46	3.93	236	250	9.58	34.32	1.07	26.51	153	0.58
121	10.28	33.77	2.78	205	300	9.06	34.34	0.79	26.62	143	0.65
149	10.59	34.05	1.58	189	400	7.87	34.33	0.47	26.79	127	0.79
196	10.08	34.22	1.50	168	500	6.80	34.32	0.30	26.92	114	0.92
253	9.54	34.32	1.03	152	600	(5.88)	(34.34)	(0.24)	(27.07)	(100)	(1.03)
351	8.46	34.34	0.59	134							
465	7.14	34.31	0.33	118							
585	6.00	34.34	0.25	102							

a) Mean value of 33.39 and 33.44‰.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

S10

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5502

CREST; February 17, 1955; 0324 GCT; 28°30'N, 116°57'W; sounding, 1970 fm; wind, 360°, force 5; weather, partly cloudy; sea, moderate; wire angle, 12°.

11355

0	15.9	33.53	5.68	329	0	15.9	33.53	5.68	24.66	329	0.00
10	15.68	33.48	5.75	328	10	15.68	33.48	5.75	24.67	328	0.03
30	15.54	33.49	5.85	324	20	15.61	33.48	5.82	24.69	326	0.07
45	15.39	33.48	5.85	322	30	15.54	33.49	5.85	24.71	324	0.10
56	15.36	33.45	5.80	323	50	15.38	33.47	5.83	24.73	322	0.16
66	15.12	33.46	5.64	317	75	14.48	33.41	5.63	24.88	308	0.24
76	14.35	33.40	5.60	306	100	11.71	33.40	3.82	25.42	256	0.31
86	12.58	33.30	4.62	280	150	10.46	33.97	2.01	26.09	193	0.43
101	11.64	33.42	3.75	254	200	9.99	34.23	1.29	26.37	166	0.52
110	11.39	33.59	3.08	237	250	9.58	34.40	0.81	26.58	147	0.60
134	10.78	33.86	2.20	206	300	9.02	34.44	0.58	26.70	135	0.67
163	10.25	34.04	1.92	185	400	7.83	34.45	0.37	26.88	118	0.80
215	9.90	34.30	1.12	160	500	6.80	34.41	0.27	27.00	106	0.92
277	9.28	34.43	0.64	140	600	6.03	34.43	0.27	27.12	95	1.03
387	7.99	34.45	0.41	120							
513	6.68	34.41	0.27	105							
645	5.72	34.46	0.27	89							

CREST; February 17, 1955; 0641, 0720 GCT; 28°21'N, 117°15'W; sounding, 2000 fm; wind, 360°, force 4; weather, partly cloudy; sea, rough; wire angle, 03°, 03°.

11360

0	15.7	33.66	5.59	315	0	15.7	33.66	5.59	24.81	315	0.00
10	15.63	33.53	5.56	323	10	15.63	33.53	5.56	24.72	323	0.03
30	15.60	33.51	5.58	324	20	15.62	33.52	5.57	24.72	324	0.06
40	15.40	33.50	5.56	320	30	15.60	33.51	5.58	24.72	324	0.10
51	15.25	33.52	5.61	316	50	15.27	33.52	5.61	24.79	316	0.16
61	14.87	33.47	5.47	312	75	12.46	33.41	4.26	25.29	269	0.23
71	12.94	33.38	4.59	280	100	10.35	33.56	3.65	25.78	222	0.30
81	11.81	33.47	3.92	254	150	9.76	34.02	2.33	26.25	178	0.40
					200	9.19	34.21	1.91	26.49	155	0.48
91	10.94	33.45	3.80	240	250	9.09	34.38	1.10	26.64	141	0.56
101	10.27	33.58	3.62	219	300	8.72	34.45	0.55	26.75	130	0.63
125	9.51	33.84	3.07	187	400	7.62	34.47	0.28	26.93	114	0.75
155	9.75	34.04	2.15	176	500	6.61	34.43	0.24	27.04	103	0.87
204	9.15	34.22	1.86	154	600	5.91	34.44	0.22	27.14	93	0.97
261	9.06	34.39	0.78	140							
364	8.02	34.48	0.30	118							
481	6.78	34.43	0.24	105							
607	5.88	34.44	0.21	92							

CREST; February 17, 1955; 1241 GCT; 28°00'N, 117°56'W; sounding, 2100 fm; wind, 010°, force 2; weather, fog; sea, moderate; wire angle, 03°.

11370

0	15.5	33.47	5.61	325	0	15.5	33.47	5.61	24.70	325	0.00
10	15.24	33.48a)	5.66	319	10	15.24	33.48	5.66	24.77	319	0.03
30	14.81	33.47	5.62	311	20	15.01	33.47	5.64	24.82	314	0.06
41	14.74	33.48	5.67	308	30	14.81	33.47	5.62	24.85	311	0.10
51	14.64	33.48	5.67	307	50	14.66	33.48	5.67	24.89	307	0.16
61	14.40	33.48	5.40	301	75	11.83	33.43	3.98	25.42	256	0.23
71	12.55	33.38	4.36	273	100	10.22	33.40	4.01	25.69	231	0.30
81	11.29	33.46	3.76	245	150	9.85	33.93	2.71	26.16	186	0.40
91	10.92	33.44	3.76	240	200	8.72	34.03	2.53	26.42	162	0.49
102	10.08	33.40	3.98	230	250	8.20	34.16	1.64	26.61	144	0.57
126	9.81	33.72	3.25	201	300	7.64	34.20	1.24	26.71	134	0.64
155	9.75	33.94	2.63	184	400	6.50	34.24	0.72	26.90	116	0.77
203	8.66	34.04	2.50	160	500	5.87	34.30	0.44	27.04	103	0.89
260	8.10	34.18	1.54	141	600	5.56	34.42	0.31	27.17	91	0.99
362	6.89	34.22	0.86	122							
480	5.96	34.28	0.49	105							
607	5.57	34.42	0.30	90							

a) Mean value of 33.44 and 33.52‰.

S10

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

117.26

CREST; February 18, 1955; 1945 GCT; 28°56'N, 114°41'W; sounding, 41 fm; wind, 300°, force 5; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	13.97	33.44	6.09	296	0	13.97	33.44	6.09	25.01	296	0.00
10	13.95	33.43	6.01	296	10	13.95	33.43	6.01	25.01	296	0.03
15	13.82	33.41	5.84	295	20	13.80	33.44	6.08	25.05	292	0.06
20	13.80	33.44	6.08	292	30	13.06	33.53	5.02	25.26	272	0.09
25	13.71	33.48	6.03	288	50	11.18	33.55	3.80	25.64	236	0.14
30	13.06	33.53	5.02	272							
35	12.79	33.52	4.73	267							
40	12.28	33.52	4.42	258							
50	11.18	33.55	3.80	236							

117.30

CREST; February 18, 1955; 1726 GCT; 28°48'N, 114°56.5'W; sounding, 58 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 06°.

0	14.7	33.48	5.97	308	0	14.7	33.48	5.97	24.89	308	0.00
10	14.50	33.48	6.01	303	10	14.50	33.48	6.01	24.93	303	0.03
15	14.55	33.47	5.99	305	20	14.57	33.49	5.92	24.92	304	0.06
20	14.57	33.49	5.92	304	30	14.74	33.55	5.88	24.93	304	0.09
25	14.64	33.51	5.89	304	50	14.12	33.56	5.28	25.08	290	0.15
30	14.74	33.55	5.88	304	75	11.79	33.67	2.90	25.62	238	0.22
35	14.63	33.57	5.67	299							
45	14.57	33.58	5.61	297							
55	13.60	33.54	4.57	282							
65	12.34	33.56	4.10	256							
80	11.58	33.78	2.12	226							

117.35

CREST; February 18, 1955; 1436 GCT; 28°38'N, 115°16'W; sounding, 135 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 05°.

0	13.92	33.41	6.14	297	0	13.92	33.41	6.14	25.00	297	0.00
10	13.92	33.36	6.13	301	10	13.92	33.36	6.13	24.96	301	0.03
15	13.82	33.40	6.22	296	20	13.55	33.39	6.14	25.06	291	0.06
20	13.55	33.39	6.14	291	30	13.05	33.31	5.62	25.10	288	0.09
25	13.10	33.34	5.66	286	50	12.59	33.48	4.60	25.32	266	0.14
30	13.05	33.31a)	5.62	287	75	11.20	33.52	3.50	25.61	239	0.21
35	12.95	33.43	5.23	277	100	10.68	33.85	2.40	25.96	206	0.26
45	12.56	33.36	5.14	275	150	10.47	34.25	1.50	26.31	172	0.36
55	12.59	33.58	4.13	259	200	10.38	34.42	0.86	26.45	159	0.44
66	12.32	33.68	3.51	247							
75	11.20	33.52	3.50	239							
94	10.68	33.78	2.61	211							
109	10.72	33.96	2.13	198							
138	10.48	34.17	1.68	179							
167	10.44	34.35	1.19	165							
202	10.36	34.42	0.84	158							

a) Mean value of 33.28 and 33.34‰.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

S10

CCOFI
5502

CREST; February 18, 1955; 1133 GCT; 28°28'N, 115°35.5'W; sounding, 550 fm; wind, 320°, force 5;
weather, drizzle; sea, moderate; wire angle, 17°.

117.40

0	14.8	33.54	5.65	305	0	14.8	33.54	5.65	24.91	305	0.00
10	14.58	33.58	5.82	298	10	14.58	33.58	5.82	24.99	298	0.03
15	14.32	33.53	5.84	296	20	13.88	33.62	5.40	25.17	281	0.06
20	13.88	33.62	5.40	281	30	13.73	33.61	5.34	25.19	278	0.09
25	13.80	33.58	5.29	282	50	12.18	33.54	4.07	25.44	255	0.14
30	13.73	33.61	5.34	278	75	11.07	33.78	2.90	25.83	218	0.20
40	13.34	33.66	4.90	268	100	11.06	33.97	2.14	25.98	204	0.25
50	12.18	33.54	4.07	255	150	10.83	34.34	1.55	26.31	172	0.35
66	11.08	33.66	3.13	227	200	10.52	34.43	0.90	26.44	160	0.43
81	11.10	33.87	2.81	211	250	10.12	34.45	0.68	26.52	152	0.51
100	11.06	33.97	2.14	204	300	9.81	34.51	0.58	26.62	143	0.59
123	10.97	34.08	1.84	193	400	(8.16)	(34.46)	(0.33)	(26.84)	(122)	(0.72)
161	10.76	34.40	1.34	166							
199	10.54	34.43	0.92	160							
246	10.15	34.45	0.69	152							
320	9.66	34.51	0.52	140							
398	8.20	34.46	0.33	122							

CREST; February 18, 1955; 0819 GCT; 28°18.5'N, 115°55'W; sounding, 1850 fm; wind, 340°, force 4;
weather, missing; sea, rough; wire angle, 12°.

117.45

0	14.8	33.54	6.00	305	0	14.8	33.54	6.00	24.91	305	0.00
10	14.67	33.50	5.40	306	10	14.67	33.50	5.40	24.91	306	0.03
30	14.14	33.43	6.06	300	20	14.42	33.46	5.73	24.92	304	0.06
41	13.92	33.45	5.63	294	30	14.14	33.43	6.06	24.96	300	0.09
51	13.30	33.56	5.32	274	50	13.38	33.55	5.38	25.21	276	0.15
61	11.91	33.64	3.82	242	75	11.04	33.76	3.15	25.83	218	0.21
71	11.08	33.67	3.34	226	100	10.48	33.90	2.75	26.03	198	0.26
80	10.98	33.82	2.96	213	150	9.98	34.20	2.11	26.36	168	0.36
90	10.67	33.81	2.94	209	200	9.50	34.33	1.55	26.53	151	0.44
99	10.48	33.88	2.76	200	250	9.15	34.43	0.97	26.67	138	0.51
123	10.25	34.07	2.28	182	300	8.72	34.43	0.73	26.74	131	0.58
151	9.95	34.21	2.10	167	400	7.72	34.43	0.42	26.88	118	0.71
198	9.51	34.32	1.56	152	500	6.82	34.42	0.35	27.00	106	0.83
254	9.12	34.43	0.92	137	600	(6.01)	(34.43)	(0.59)	(27.12)	(95)	(0.93)
354	8.16	34.43	0.51	124							
469	7.10	34.42	0.33	110							
591	6.07	34.43	0.56	96							

CREST; February 18, 1955; 0513 GCT; 28°09'N, 116°15.5'W; sounding, 2000+ fm; wind, 340°, force 4;
weather, overcast; sea, rough; wire angle, 25°.

117.50

0	15.0	33.40	5.81	320	0	15.0	33.40	5.81	24.76	320	0.00
10	14.94	33.43	5.86	316	10	14.94	33.43	5.86	24.80	316	0.03
28	14.73	33.39	5.81	315	20	14.84	33.42	5.85	24.80	316	0.06
43	14.21	33.45	6.06	300	30	14.70	33.39	5.81	24.82	314	0.10
52	13.95	33.43	5.80	296	50	14.00	33.43	5.85	25.00	297	0.16
61	13.41	33.50	5.30	280	75	11.72	33.32	4.62	25.35	263	0.23
70	12.00	33.31	4.67	268	100	10.80	33.64	3.07	25.77	223	0.29
79	11.51	33.35	4.53	257	150	10.71	34.13	1.67	26.17	186	0.39
92	10.96	33.48	3.47	238	200	10.26	34.38	1.05	26.45	159	0.48
100	10.80	33.64	3.07	223	250	9.73	34.46	0.70	26.59	145	0.56
122	11.05	33.96	2.02	204	300	9.00	34.43	0.66	26.70	135	0.63
147	10.75	34.11	1.71	188	400	7.81	34.42	0.49	26.86	120	0.76
191	10.35	34.34	1.16	164	500	6.98	34.42	0.30	26.99	108	0.88
244	9.80	34.46	0.72	146	600	(6.02)	(34.41)	(0.36)	(27.10)	(97)	(0.99)
341	8.32	34.41	0.63	127							
456	7.38	34.42	0.30	113							
583	6.20	34.41	0.34	99							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10}{10 \text{ cm/g}}$	dyn. m

117.55

CREST; February 18, 1955; 0156 GCT; 27°58'N, 116°36'W; sounding, 2000 fm; wind, 350°, force 4; weather, overcast; sea, moderate; wire angle, 23°.

0	15.9	33.57	5.79	326	0	15.9	33.57	5.79	24.69	326	0.00
10	15.72	33.56	5.95	323	10	15.72	33.56	5.95	24.72	323	0.03
29	15.59	33.57	5.73	319	20	15.64	33.56	5.80	24.75	320	0.06
43	15.34	33.58	5.76	313	30	15.57	33.57	5.72	24.77	318	0.10
52	15.13	33.56	5.70	310	50	15.18	33.57	5.70	24.86	310	0.16
61	15.06	33.53	5.78	311	75	14.90	33.50	5.76	24.86	310	0.24
71	14.93	33.50	5.25	310	100	12.26	33.34	4.07	25.26	272	0.31
81	14.84	33.51	5.74	308	150	10.32	33.91	2.69	26.07	195	0.43
94	12.87	33.30	4.62	285	200	9.20	34.15	2.09	26.44	160	0.52
103	12.06	33.38	3.90	264	250	9.00	34.27	1.40	26.58	147	0.60
126	11.38	33.73	3.10	226	300	8.65	34.41	0.95	26.74	132	0.67
152	10.26	33.92	2.66	194	400	7.68	34.45	0.35	26.91	116	0.80
200	9.20	34.15	2.09	160	500	6.62	34.43	0.27	27.04	103	0.91
257	8.98	34.30	1.33	145	600	5.94	34.46	0.28	27.16	92	1.02
360	8.14	34.46	0.50	121							
483	6.75	34.43	0.26	105							
615	5.85	34.47	0.29	90							

117.60

CREST; February 17, 1955; 2253 GCT; 27°47.5'N, 116°55'W; sounding, 2000+ fm; wind, 320°, force 3; weather, fog; sea, moderate; wire angle, 15°.

0	15.8	33.45	5.75	332	0	15.8	33.45	5.75	24.62	332	0.00
10	15.60	33.45	5.74	328	10	15.60	33.45	5.74	24.67	328	0.03
30	15.49	33.49	5.86	323	20	15.53	33.47	5.82	24.69	326	0.07
41	15.30	33.50	5.88	318	30	15.49	33.49	5.86	24.72	323	0.10
51	15.39	33.58	5.53	314	50	15.38	33.57	5.55	24.81	315	0.16
60	15.35	33.58	5.46	314	75	12.98	33.41	4.94	25.19	279	0.24
70	14.01	33.49	5.02	293	100	11.27	33.50	3.77	25.58	242	0.30
79	12.23	33.35	4.77	270	150	10.03	33.87	2.60	26.08	194	0.41
89	11.53	33.33	4.04	259	200	10.15	34.34	1.02	26.44	160	0.50
98	11.32	33.49	3.81	243	250	9.45	34.36	0.71	26.56	148	0.58
123	10.43	33.75	2.94	209	300	8.72	34.41	0.50	26.72	133	0.66
151	10.02	33.88	2.58	193	400	7.49	34.43	0.28	26.92	114	0.78
199	10.16	34.34	1.04	160	500	6.55	34.42	0.20	27.04	103	0.90
256	9.35	34.36	0.67	146	600	5.89	34.42	0.20	27.13	94	1.00
358	7.95	34.44	0.34	120							
476	6.75	34.42	0.20	105							
601	5.87	34.42	0.20	94							

117.70

CREST; February 17, 1955; 1752 GCT; 27°27.5'N, 117°33'W; sounding, 2050 fm; wind, 010°, force 4; weather, fog; sea, moderate; wire angle, 13°.

0	16.5	33.47	5.46	346	0	16.5	33.47	5.46	24.48	346	0.00
10	16.28	33.46	5.61	342	10	16.28	33.46	5.61	24.52	342	0.03
30	15.21	33.43	5.79	322	20	15.73	33.44	5.70	24.63	332	0.07
40	15.26	33.43	5.77	323	30	15.21	33.43	5.79	24.74	322	0.10
50	15.22	33.43	5.71	322	50	15.22	33.43	5.71	24.74	322	0.16
60	15.25	33.48	5.71	319	75	15.03	33.50	5.62	24.83	313	0.24
70	15.38	33.53	5.72	318	100	11.67	33.42	4.31	25.45	254	0.32
79	14.40	33.42	5.40	306	150	9.62	33.91	2.77	26.18	184	0.43
89	12.38	33.33	4.64	274	200	9.28	34.16	2.08	26.44	160	0.52
98	11.78	33.41	4.37	257	250	8.90	34.31	1.30	26.62	143	0.59
123	10.00	33.54	3.36	218	300	8.44	34.36	0.73	26.73	132	0.66
150	9.62	33.91	2.77	184	400	7.42	34.38	0.37	26.89	117	0.79
196	9.31	34.14	2.12	162	500	6.41	34.39	0.32	27.03	104	0.91
250	8.90	34.31	1.30	143	600	(5.59)	(34.40)	(0.28)	(27.15)	(92)	(1.01)
348	7.98	34.38	0.38	125							
462	6.75	34.39	0.33	108							
583	5.76	34.40	0.28	94							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

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CREST; February 19, 1955; 0008 GCT; 28°23'N, 114°15'W; sounding, 30 fm; wind, 310°, force 5; weather, partly cloudy; sea, moderate; wire angle, 05°.

12025

0	14.74	33.55	6.16	303	0	14.74	33.55	6.16	24.93	303	0.00
10	14.61	33.59	6.16	298	10	14.61	33.59	6.16	24.99	298	0.03
15	14.44	33.66	6.05	289	20	14.15	33.62	5.98	25.11	286	0.06
20	14.15	33.62	5.98	286	30	13.36	33.47	4.79	25.16	282	0.09
25	13.93	33.63	5.66	281							
30	13.36	33.47	4.79	282							
35	13.10	33.41	4.34	281							
40	13.70	33.70	4.38	272							

CREST; February 19, 1955; 0311 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 14°.

12030

0	14.9	33.56	6.28	306	0	14.9	33.56	6.28	24.90	306	0.00
10	14.72	33.52	6.34	305	10	14.72	33.52	6.34	24.91	305	0.03
15	14.73	33.50	6.27	306	20	14.69	33.49	6.35	24.90	306	0.06
20	14.69	33.49	6.35	306	30	14.21	33.62	6.01	25.10	288	0.09
25	14.41	33.54	6.06	297	50	13.45	33.56	4.68	25.21	277	0.15
30	14.21	33.62	6.01	288	75	(11.12)	(33.63)	(2.93)	(25.71)	(229)	(0.21)
35	14.08	33.62	5.77	285							
45	13.82	33.58	5.24	282							
55	12.95	33.56	3.89	267							
70	11.50	33.61	3.06	238							

CREST; February 19, 1955; 0624 GCT; 28°03'N, 114°55'W; sounding, 47 fm; wind, 340°, force 6; weather, clear; sea, very rough; wire angle, 11°.

12035

0	14.9	33.58	5.96	304	0	14.9	33.58	5.96	24.92	304	0.00
10	15.00	33.63	5.98	303	10	15.00	33.63	5.98	24.94	303	0.03
15	15.01	33.68	5.95	299	20	14.98	33.58	5.91	24.91	306	0.06
20	14.98	33.58	5.91	306	30	14.96	33.58	5.83	24.91	305	0.09
25	14.98	33.60	5.92	305	50	14.70	33.58	5.71	24.96	300	0.15
30	14.96	33.58	5.83	305							
35	14.88	33.58	5.83	304							
40	14.82	33.60	5.79	301							
50	14.70	33.58	5.71	300							
60	14.08	33.52	5.61	292							

SPENCER F. BAIRD; February 23, 1955; 2011 GCT; 27°54'N, 115°18'W; sounding, 50 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.

12040

0	14.18	33.63	5.41	286	0	14.18	33.63	5.41	25.11	286	0.00
5	13.88	33.61	5.71	282	10	13.82	33.63	5.30	25.18	279	0.03
10	13.82	33.63	5.30	279	20	13.77	33.65	5.18	25.21	276	0.06
14	13.80	33.67	5.36	276	30	13.75	33.67	5.25	25.24	274	0.08
19	13.76	33.67	5.17	275	50	12.76	33.69	4.02	25.45	254	0.15
24	13.77	33.62	5.25	278							
28	13.77	33.67	5.27	275							
38	13.68	33.67	5.09	274							
47	13.05	33.68	4.37	260							
60	12.02	33.23	2.99	238							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

120.45

SPENCER F. BAIRD; February 23, 1955; 1535 GCT; 27°44.5'N, 115°27'W; sounding, 1425 fm; wind, 360°, force 5; weather, overcast; sea, rough; wire angle, 11°.

0	14.69	33.52	5.65	304	0	14.69	33.52	5.65	24.92	304	0.00
10	14.68	33.44	5.66	310	10	14.68	33.44	5.66	24.86	310	0.03
30	14.69	33.44	5.57	310	20	14.69	33.44	5.60	24.86	310	0.06
45	13.72	33.37	5.03	296	30	14.69	33.44	5.57	24.86	310	0.09
59	11.95	33.78	2.71	233	50	11.41	33.51	4.26	25.56	243	0.15
69	11.70	33.84	2.62	224	75	11.59	33.89	2.40	25.82	218	0.21
78	11.51	33.92	2.19	215	100	11.17	34.04	1.88	26.02	200	0.26
92	11.32	33.97	1.97	208	150	10.90	34.28	1.42	26.24	178	0.36
102	11.17	34.04	1.87	200	200	10.79	34.38	1.15	26.36	168	0.44
117	11.15	34.07	1.69	197	250	10.23	34.46	0.58	26.51	153	0.52
145	10.94	34.27	1.42	179	300	9.31	34.52	0.48	26.71	134	0.60
175	10.86	34.37	-	170	400	8.08	34.48	0.33	26.88	118	0.73
233	10.54	34.42	0.69	161	500	6.99	34.47	0.28	27.02	105	0.84
301	9.30	34.52	0.48	134	600	6.02	34.45	0.24	27.13	94	0.95
416	7.90	34.48	0.32	116	700	(5.40)	(34.43)	(0.35)	(27.20)	(88)	(1.05)
554	6.40	34.46	0.24	98							
694	5.41	34.43	0.34	88							

120.45

SPENCER F. BAIRD; February 23, 1955; 1700 GCT; 27°44.5'N, 115°37'W; sounding, 1450 fm; wind, 360°, force 5; weather, overcast; sea, rough; wire angle, 18°.

0	14.67	33.50		305	0	14.67	33.50		24.91	305	0.00
10	14.65	33.47		307	10	14.65	33.47		24.89	307	0.03
30	14.66	33.48		306	20	14.65	33.48		24.90	307	0.06
34	14.48	33.45		305	30	14.66	33.48		24.90	306	0.09
39	13.97	33.39		299	50	13.73	33.40		25.03	294	0.15
44	13.90	33.39		298	75	11.67	33.83		25.76	224	0.22
48	13.80	33.41		294	100	11.13	33.98		25.98	203	0.27
53	13.50	33.35		293	150	10.87	34.32		26.29	174	0.37
59	12.33	33.40		268	200	10.67	34.47		26.44	160	0.45
68	11.62	33.52		246	250	(10.25)	(34.52)		(26.56)	(149)	(0.53)
77	11.68	33.86		222							
87	11.44	33.97		210							
96	11.20	33.97		206							
142	10.90	34.27		178							
190	10.72	34.45		162							
234	10.45	34.52		152							
244	10.37	34.52		150							

120.50

SPENCER F. BAIRD; February 23, 1955; 1205 GCT; 27°34.5'N, 115°49'W; sounding, 2100 fm; wind, 010°, force 5; weather, cloudy; sea, rough; wire angle, 36°.

0	14.94	33.48	4.93	313	0	14.94	33.48	4.93	24.83	313	0.00
9	14.96	33.49	5.74	312	10	14.96	33.49	5.76	24.84	312	0.03
25	14.96	33.39u	6.10	-	20	14.96	33.49	6.00	24.84	312	0.06
38	14.94	33.51	5.75	310	30	14.96	33.50	5.95	24.85	311	0.09
50	14.68	33.51	5.70	305	50	14.68	33.51	5.70	24.91	305	0.16
58	14.49	33.40	5.75	309	75	13.90	33.41	5.19	25.00	296	0.23
66	14.30	33.40	5.70	305	100	11.12	33.49	3.97	25.60	240	0.30
78	13.68	33.42	5.01	291	150	9.22	33.96	2.32	26.29	174	0.40
85	12.29	33.47	4.10	262	200	9.04	34.21	1.92	26.51	153	0.49
96	11.25	33.48	4.00	243	250	8.92	34.35	1.43	26.64	140	0.56
117	9.90	33.74	3.42	201	300	8.84	34.46	0.73	26.74	131	0.63
138	9.44	33.90	-	182	400	7.88	34.45	0.29	26.88	118	0.76
180	9.09	34.14	2.04	158	500	6.87	34.43	0.45	27.01	106	0.88
231	8.93	34.30	1.40	144							
322	8.76	34.47	0.38	129							
437	7.46	34.44	0.29	113							
560	6.28	34.43	0.69	99							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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SPENCER F. BAIRD; February 23, 1955; 0842 GCT; 27°24'N, 116°12'W; sounding, 2200 fm; wind, 360°, force 5; weather, cloudy; sea, rough; wire angle, 30°.

12055

0	15.40	33.53	5.55	318	0	15.40	33.53	5.55	24.77	318	0.00
9	15.40	33.48	5.74	322	10	15.40	33.48	5.74	24.74	322	0.03
26	15.41	33.51	5.66	320	20	15.40	33.50	5.70	24.75	321	0.06
48	15.40	33.48	5.65	322	30	15.40	33.50	5.66	24.75	321	0.10
61	14.86	33.41	5.57	316	50	15.38	33.48	5.64	24.74	322	0.16
70	14.47	33.47	5.71a)	303	75	13.83	33.43	5.52	25.03	293	0.24
82	12.34	33.31	4.95	274	100	11.19	33.39	4.53	25.51	248	0.31
101	11.18	33.39	4.52	248	150	10.10	33.87	2.73	26.08	194	0.42
129	10.46	33.76	3.13	209	200	9.44	34.06	2.15	26.33	170	0.51
147	10.12	33.87	2.74	195	250	8.76	34.21	1.52	26.56	148	0.59
199	9.45	34.06	2.16	170	300	8.30	34.28	1.14	26.68	137	0.67
251	8.74	34.21	-	148	400	7.43	34.35	0.56	26.87	119	0.80
336	8.00	34.32	0.89	129	500	6.59	34.38	0.30	27.00	106	0.92
455	6.97	34.37	0.36	111	600	5.91	34.40	0.24	27.11	97	1.03
620	5.80	34.40	0.24	94	700	5.34	34.42	0.24	27.20	88	1.12
830	4.77	34.44	0.31	80	800	4.88	34.43	0.37	27.26	82	1.22
1131	3.76	34.49	0.64	66	1000	4.11	34.47	0.50	27.38	71	1.38

SPENCER F. BAIRD; February 23, 1955; 0452 GCT; 27°15'N, 116°30.5'W; sounding, 2100 fm; wind, 360°, force 4; weather, missing; sea, rough; wire angle, 30°.

12060

0	15.81	33.44	5.78	333	0	15.81	33.44	5.78	24.62	333	0.00
9	15.79	33.35	5.65	340	10	15.79	33.35	5.64	24.55	339	0.03
22	15.74	33.38	5.40	336	20	15.77	33.38	5.44	24.58	336	0.07
48	15.05	33.30	5.85	328	30	15.59	33.38	5.55	24.62	333	0.10
57	15.09	33.30	5.74	329	50	15.04	33.30	5.83	24.67	328	0.17
66	15.35	33.46	5.69	322	75	14.64	33.42	5.60	24.86	310	0.25
78	14.20	33.39	5.53	304	100	11.68	33.38	4.48	25.41	258	0.32
94	12.02	33.37	4.56	264	150	9.59	33.67	3.55	26.00	202	0.44
116	10.66	33.41	4.37	238	200	9.56	34.12	2.30	26.36	167	0.53
138	10.10	33.59	3.89	216	250	9.01	34.24	1.90	26.55	150	0.61
176	9.69	33.95	2.53	182	300	8.20	34.26	1.28	26.69	136	0.68
232	9.25	34.22	-	155	400	7.40	34.25	0.49	26.79	127	0.82
309	8.07	34.26	1.20	135	500	6.54	34.36	0.35	26.99	107	0.94
414	7.36	34.25	0.46	126	600	5.87	34.43	0.32	27.15	93	1.05
561	6.05	34.42	0.32	96	700	5.32	34.46	0.30	27.23	85	1.15
754	5.08	34.47	0.30	82	800	4.89	34.48	0.32	27.30	78	1.24
1033	4.06	34.54	0.51	66	1000	4.19	34.53	0.48	27.41	68	1.40

SPENCER F. BAIRD; February 22, 1955; 2337 GCT; 26°55'N, 117°09'W; sounding, 2300 fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 08°.

12070

0	15.90	33.55	5.59	327	0	15.90	33.55	5.59	24.68	327	0.00
10	15.89	33.50	5.42	331	10	15.89	33.50	5.42	24.64	331	0.03
25	15.87	33.53	5.40	328	20	15.88	33.52	5.40	24.66	329	0.07
54	15.66	33.58	5.44	320	30	15.86	33.54	5.40	24.67	328	0.10
64	15.85	33.61	5.56	322	50	15.69	33.56	5.44	24.73	322	0.16
73	15.62	33.58	5.47	319	75	15.49	33.55	5.43	24.77	319	0.24
88	14.36	33.35	5.06	310	100	13.00	33.37	4.39	25.15	283	0.32
107	12.20	33.42	3.94	264	150	11.01	33.93	2.16	25.95	206	0.44
131	11.38	33.76	2.73	224	200	10.29	34.18	1.79	26.28	174	0.54
160	11.12	34.09	1.83	196	250	9.00	34.36	1.39	26.64	141	0.62
212	9.89	34.22	1.80	166	300	8.59	34.38	1.18	26.72	133	0.70
288	8.70	34.38	-	135	400	7.33	34.36	0.59	26.88	118	0.82
384	7.46	34.36	0.65	119	500	6.70	34.38	0.35	26.99	108	0.94
534	6.51	34.39	0.30	105	600	6.09	34.40	0.28	27.09	98	1.05
723	5.30	34.43	0.28	87	700	5.48	34.42	0.28	27.19	89	1.15
960	4.25	34.47	0.49	73	800	4.93	34.44	0.32	27.26	82	1.25
1269	3.42	34.52	0.80	61	1000	4.11	34.48	0.54	27.37	71	1.41

a) Mean value of 5.61 and 5.81 ml/L.

S10

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

12080

SPENCER F. BAIRD; February 22, 1955; 1817 GCT; 26°38.5'N, 117°48.5'W; sounding, 2150 fm; wind, 050°, force 4; weather, cloudy; sea, rough; wire angle, 14°.

0	16.16	33.50	5.45	337	0	16.16	33.50	5.45	24.58	337	0.00
10	16.16	33.50	5.49	337	10	16.16	33.50	5.49	24.58	337	0.03
25	16.17	33.56	5.47	332	20	16.17	33.54	5.47	24.61	334	0.07
54	15.42	33.40	5.42	328	30	16.17	33.56	5.44	24.63	332	0.10
64	15.36	33.40	5.47	326	50	15.60	33.45	5.42	24.65	330	0.17
73	15.32	33.37	5.38	328	75	15.30	33.36	5.36	24.67	328	0.15
88	14.15	33.25	5.33	313	100	12.35	33.20	4.90	25.13	284	0.33
107	11.61	33.20	4.68	270	150	10.18	33.56	3.66	25.82	219	0.45
130	10.52	33.46	4.11	232	200	9.40	34.04	2.42	26.32	171	0.55
160	9.88	33.59	3.48	212	250	8.95	34.21	1.95	26.53	151	0.64
212	9.28	34.12	2.28	163	300	8.42	34.28	1.48	26.66	139	0.71
288	8.59	34.27	-	141	400	7.23	34.36	0.53	26.90	116	0.84
392	7.33	34.35	0.57	118	500	6.50	34.40	0.33	27.03	104	0.96
530	6.30	34.42	0.28	100	600	5.91	34.45	0.27	27.15	92	1.06
716	5.25	34.49	0.26	82	700	5.35	34.48	0.26	27.25	83	1.16
948	4.27	34.52	0.46	69	800	4.87	34.50	0.31	27.31	77	1.24
1251	3.45	34.63	0.77	53	1000	4.13	34.53	0.51	27.42	67	1.40

12090

SPENCER F. BAIRD; February 22, 1955; 1246 GCT; 26°14'N, 118°32'W; sounding, 2250 fm; wind, 030°, force 4; weather, clear; sea, rough; wire angle, 25°.

0	15.36	33.41	5.76	326	0	15.36	33.41	5.76	24.69	326	0.00
10	15.36	33.39	5.68	327	10	15.36	33.39	5.68	24.68	327	0.03
24	15.37	33.45	5.69	323	20	15.36	33.43	5.69	24.71	324	0.06
51	15.02	33.36	5.72	323	30	15.32	33.42	5.70	24.72	323	0.10
60	14.82	33.36	5.71	319	50	15.06	33.37	5.71	24.72	323	0.16
69	14.67	33.37	5.71	315	75	14.38	33.36	5.68	24.85	311	0.24
83	13.17	33.19	5.41	298	100	11.39	33.18	4.85	25.31	267	0.32
101	11.25	33.18	4.79	265	150	9.73	33.97	2.58	26.22	181	0.43
122	10.10	33.40	4.06	230	200	8.88	34.07	2.48	26.44	160	0.52
149	9.75	33.94	2.64	184	250	8.59	34.23	1.90	26.61	144	0.59
196	8.93	34.06	2.52	162	300	8.42	34.38	1.30	26.74	131	0.66
264	8.52	34.30a)	-	138	400	7.64	34.45	0.39	26.91	116	0.79
361	8.12	34.46	0.44	121	500	6.30	(34.38)	0.42	(27.04)	(103)	(0.91)
487	6.41	34.38	0.43	104	600	5.71	(34.43)	0.30	(27.17)	(91)	(1.01)
663	5.35	34.66r	0.28	-	700	5.19	(34.50)	0.29	(27.28)	(81)	(1.10)
880	4.43	34.55	0.45	69	800	4.73	(34.53)	0.38	(27.35)	(73)	(1.18)
1172	3.58	34.57	0.76	59	1000	4.06	34.56	0.58	27.45	64	(1.34)

120100

SPENCER F. BAIRD; February 22, 1955; 0735 GCT; 25°57'N, 119°06'W; sounding, 2300 fm; wind, 050°, force 4; weather, partly cloudy; sea, rough; wire angle, 02°.

0	16.44	33.58	5.45	337	0	16.44	33.58	5.45	24.58	337	0.00
10	16.43	33.55	5.36	339	10	16.43	33.55	5.36	24.56	339	0.03
25	16.45	33.58	5.35	337	20	16.45	33.58	5.35	24.56	338	0.07
55	16.45	33.57	5.47	338	30	16.45	33.58	5.38	24.56	338	0.10
65	15.83	33.41	5.32	336	50	16.46	33.58	5.46	24.56	338	0.17
74	15.35	33.38	5.54	328	75	15.32	33.38	5.54	24.68	327	0.25
89	14.85	33.38	5.11	318	100	14.20	33.39	5.02	24.92	304	0.33
108	13.20	33.42	4.96	282	150	10.38	33.58	4.02	25.80	221	0.46
133	11.18	33.46b)	4.76	243	200	9.82	33.99	2.62	26.21	182	0.57
161	10.14	33.68	3.61	209	250	9.25	34.16	2.00	26.45	159	0.66
213	9.73	34.04	2.40	176	300	8.59	34.26	1.49	26.63	142	0.73
291	8.70	34.25	-	144	400	7.50	34.30	0.73	26.82	124	0.87
397	7.55	34.30	0.76	125	500	6.67	34.38	0.36	26.99	108	0.99
538	6.40	34.39	0.30	103	600	5.97	34.41	0.31	27.11	96	1.10
727	5.15	34.43	0.33	85	700	5.31	34.42	0.32	27.20	88	1.20
962	4.32	34.52	0.51	70	800	4.84	34.47	0.39	27.29	79	1.29
1268	3.44	34.52	0.80	61	1000	4.19	34.52	0.56	27.41	68	1.45

a) Mean value of 34.27 and 34.34‰.

b) Mean value of 33.43 and 33.48‰.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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SPENCER F. BAIRD; February 21, 1955; 0040 GCT; 27°24.5'N, 114°40.5'W; sounding, 40 fm; wind, 340°, force 3; weather, clear; sea, rough; wire angle, 01°.

123.37

0	15.44	33.67	5.47	309	0	15.44	33.67	5.47	24.87	309	0.00
10	15.44	33.67	5.49	309	10	15.44	33.67	5.49	24.87	309	0.03
15	15.40	33.68	5.57	308	20	15.05	33.63	5.51	24.93	304	0.06
20	15.05	33.63	5.51	304	30	13.72	33.53	4.95	25.13	284	0.09
25	14.85	33.61	5.45	301	50	12.26	33.70	3.30	25.54	245	0.16
30	13.72	33.53	4.95	284							
35	13.25	33.56	4.66	273							
40	12.96	33.59	4.05	265							
45	12.76	33.65	3.74	257							
50	12.26	33.70	3.30	245							

SPENCER F. BAIRD; February 21, 1955; 0303 GCT; 27°18.5'N, 114°52'W; sounding, 300 fm; wind, 360°, force 4; weather, clear; sea, rough; wire angle, 20°.

123.40

0	15.51	33.68	5.57	309	0	15.51	33.68	5.57	24.87	309	0.00
10	15.50	33.66	5.63	311	10	15.50	33.66	5.63	24.85	311	0.03
29	15.40	33.64	5.48	310	20	15.47	33.65	5.63	24.85	311	0.06
38	13.79	33.48	5.04	289	30	15.39	33.63	5.46	24.86	310	0.09
48	12.58	33.47	4.10	267	50	12.48	33.47	4.06	25.33	265	0.15
57	12.17	33.48	3.98	258	75	11.06	33.80	2.82	25.85	216	0.21
66	11.40	33.58	3.29	238	100	11.83	34.28	1.41	26.08	194	0.26
75	11.06	33.80	2.82	216	150	10.29	34.31	1.50	26.38	165	0.35
84	11.61	34.08	2.09	205	200	10.66	34.56	0.56	26.52	152	0.43
93	11.99	34.24	1.62	200	250	10.01	34.54	0.51	26.61	144	0.51
111	11.48	34.30	1.37	186	300	9.49	34.53	0.46	26.67	138	0.58
135	10.44	34.24	-	173	400	8.37	34.51	0.35	26.85	121	0.71
153	10.28	34.31	1.44	165	500	(6.88)	(34.45)		(27.02)	(105)	(0.83)
190	10.74	34.56	0.62	154							
265	9.82	34.53	0.50	142							
362	8.86	34.52	0.38	127							
477	7.22	34.46	0.26	109							

SPENCER F. BAIRD; February 21, 1955; 0623 GCT; 27°08'N, 115°14'W; sounding, 2350 fm; wind, 010°, force 5; weather, clear; sea, rough; wire angle, 10°.

123.45

0	15.17	33.57	5.63	310	0	15.17	33.57	5.63	24.86	310	0.00
10	15.16	33.52	5.51	313	10	15.16	33.52	5.51	24.83	313	0.03
30	15.15	33.54	6.32	312	20	15.16	33.53	5.93	24.83	313	0.06
45	15.00	33.55	5.39	308	30	15.15	33.54	6.32	24.84	312	0.09
59	13.34	33.39	4.77	288	50	14.76	33.54	5.19	24.92	305	0.16
69	11.71	33.30	4.70	264	75	11.12	33.34	4.39	25.48	251	0.22
78	11.48	33.51	3.85	245	100	11.60	33.94	2.27	25.86	215	0.28
93	11.62	33.85	2.54	222	150	11.10	34.43	1.03	26.33	170	0.38
103	11.57	33.99	2.15	210	200	10.52	34.49	0.90	26.48	156	0.46
118	11.33	34.17	1.84	193	250	9.99	34.50	0.85	26.58	146	0.54
147	11.14	34.42	1.08	171	300	9.49	34.57	0.41	26.72	133	0.61
175	10.81	34.49	-	160	400	7.84	34.46	0.32	26.89	117	0.74
232	10.13	34.48	0.89	150	500	6.73	34.45	0.27	27.04	103	0.86
300	9.49	34.57	0.41	133	600	5.99	34.46	0.25	27.16	92	0.96
426	7.47	34.45	0.32	113	700	(5.39)	(34.48)	(0.27)	(27.24)	(84)	(1.05)
552	6.30	34.46	0.24	97							
690	5.41	34.48	0.27	84							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{cm/g}$	dyn. m

123.50

SPENCER F. BAIRD; February 21, 1955; 0937 GCT; 26°55.5'N, 115°33.5'W; sounding, 1800 fm; wind, 040°, force 5; weather, clear; sea, rough; wire angle, 05°.

0	15.46	33.50	5.65	322	0	15.46	33.50	5.65	24.74	322	0.00
10	15.46	33.44	5.76	325	10	15.46	33.44	5.76	24.70	325	0.03
30	15.46	33.50	5.60	322	20	15.46	33.48	5.65	24.72	323	0.06
45	15.10	33.52	5.55	313	30	15.46	33.50	5.60	24.74	322	0.10
60	14.70	33.46	5.50	309	50	14.96	33.50	5.54	24.85	311	0.16
70	14.29	33.47	5.30	300	75	13.51	33.40	5.12	25.07	290	0.24
80	12.75	33.32	5.07	281	100	11.04	33.44	3.90	25.57	242	0.30
95	11.28	33.32	4.37	255	150	10.75	34.14	1.75	26.17	185	0.41
104	10.87	33.56	3.49	230	200	10.28	34.43	1.12	26.48	156	0.50
119	9.88	33.70	3.26	204	250	9.81	34.53	0.78	26.64	141	0.57
148	10.75	34.14	1.79	185	300	9.19	34.53	0.44	26.74	131	0.64
177	10.49	34.34	-	166	400	7.72	34.43	0.30	26.88	118	0.77
235	9.99	34.52	0.87	145	500	6.88	34.43	0.27	27.01	106	0.89
303	9.16	34.53	0.43	131	600	6.19	34.46	0.21	27.12	95	1.00
420	7.50	34.42	0.29	115	700	(5.45)	(34.48)	0.18	(27.23)	(85)	(1.09)
567	6.40	34.45	0.23	99							
697	5.46	34.48	0.18	85							

123.55

SPENCER F. BAIRD; February 21, 1955; 1248 GCT; 26°45'N, 115°51.5'W; sounding, 2100 fm; wind, 030°, force 5; weather, clear; sea, rough; wire angle, 31°.

0	15.51	33.39	5.82	331	0	15.51	33.39	5.82	24.64	331	0.00
10	15.54	33.40	6.19	330	10	15.54	33.40	6.19	24.65	330	0.03
27	15.52	33.41	5.68	330	20	15.52	33.40	5.90	24.65	330	0.07
40	15.53	33.43	5.80	328	30	15.52	33.41	5.75	24.66	329	0.10
52	15.54	33.44	5.51	328	50	15.53	33.44	5.55	24.68	328	0.16
61	15.64	33.57	5.41	321	75	15.70	33.65	5.25	24.80	316	0.24
69	15.74	33.65	5.25	317	100	13.42	33.30	5.35	25.01	296	0.32
81	15.65	33.65	5.27	314	150	10.18	33.61	3.51	25.86	215	0.45
89	15.39	33.62	5.31	312	200	9.51	34.04	2.32	26.42	162	0.55
100	13.42	33.30	5.35	296	250	8.81	34.24	1.51	26.58	147	0.63
120	10.79	33.37	4.59	242	300	8.32	34.33	1.08	26.72	133	0.71
138	10.28	33.47	-	228	400	7.74	34.41	0.40	26.86	120	0.84
176	9.91	33.87	2.91	191	500	7.03	34.46	0.19	27.00	106	0.96
222	9.18	34.15	1.90	159							
301	8.31	34.33	1.05	133							
403	7.74	34.41	0.40	119							
516	6.92	34.46	0.18	104							

127.34

SPENCER F. BAIRD; February 20, 1955; 1912 GCT; 26°55.5'N, 114°06.5'W; sounding, 45 fm; wind, 020°, force 3; weather, clear; sea, slight; wire angle, 04°.

0	15.23	33.68	5.47	304	0	15.23	33.68	5.47	24.92	304	0.00
10	15.17	33.64	5.41	305	10	15.17	33.64	5.41	24.91	305	0.03
20	15.03	33.58	5.35	307	20	15.03	33.58	5.35	24.89	307	0.06
25	14.84	33.57	5.38	304	30	14.20	33.49	5.19	25.00	297	0.09
30	14.20	33.49	5.19	297	50	12.03	33.37	4.37	25.34	265	0.15
35	13.80	33.43	5.18	293							
40	12.88	33.37	4.76	280							
45	12.48	33.33	4.59	276							
50	12.03	33.37	4.37	265							
60	11.65	33.53	3.77	246							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m	

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SPENCER F. BAIRD; February 20, 1955; 1516 GCT; 26°56.5'N, 114°40.5'W; sounding, 1750 fm; wind, 360°, force 4; weather, partly cloudy; sea, very rough; wire angle, 17°.

12740

0	16.06	33.72	5.49	318	0	16.06	33.72	5.49	24.78	318	0.00
10	16.08	33.75	5.45	316	10	16.08	33.75	5.45	24.79	316	0.03
30	16.07	33.71	5.30	320	20	16.08	33.73	5.40	24.78	318	0.06
43	16.07	33.71	5.44	320	30	16.07	33.71	5.30	24.76	320	0.10
57	15.85	33.71	5.46	315	50	16.00	33.71	5.45	24.77	319	0.16
66	14.02	33.57	4.51	288	75	12.78	33.49	3.88	25.29	269	0.23
75	12.78	33.49	3.88	269	100	10.74	33.71	3.28	25.84	217	0.30
89	11.53	33.55	3.65	242	150	10.56	34.27	1.69	26.31	172	0.39
98	10.79	33.68	3.34	220	200	10.28	34.48	0.91	26.52	152	0.48
111	10.60	33.83	2.79	206	250	9.80	34.52	0.63	26.64	141	0.55
137	10.60	34.13	1.98	184	300	9.20	34.53	0.52	26.73	132	0.62
163	10.48	34.34	-	166	400	7.92	34.50	0.30	26.91	116	0.75
217	10.14	34.50	0.72	148	500	6.82	34.46	0.18	27.03	104	0.86
281	9.43	34.53	0.57	136	600	6.07	34.46	0.16	27.14	93	0.97
389	8.02	34.50	0.33	117							
519	6.64	34.46	0.16	102							
653	5.78	34.47	0.18	89							

SPENCER F. BAIRD; February 20, 1955; 1127 GCT; 26°42.5'N, 114°58'W; sounding, 2050 fm; wind, 020°, force 6; weather, clear; sea, very rough; wire angle, 20°.

12745

0	15.02	33.60	5.82	305	0	15.02	33.60	5.82	24.91	305	0.00
10	15.04	33.59	5.63	306	10	15.04	33.59	5.63	24.90	306	0.03
29	14.58	33.60	5.67	296	20	14.91	33.59	5.58	24.93	304	0.06
42	12.92	33.55	4.73	268	30	14.42	33.60	5.64	25.03	294	0.09
56	12.10	33.51	3.65	255	50	12.41	33.53	3.96	25.39	260	0.15
65	11.56	33.50	3.88	246	75	11.46	33.65	3.24	25.66	234	0.21
74	11.46	33.65	3.25	234	100	10.69	33.85	2.69	25.95	206	0.26
87	11.02	33.74	2.85	220	150	10.15	34.15	2.00	26.28	175	0.36
109	10.51	33.89	2.66	200	200	10.04	34.41	1.57	26.51	154	0.44
135	10.10	33.98	2.38	186							
162	10.18	34.27	-	166							
220	9.96	34.45	1.52	149							

SPENCER F. BAIRD; February 20, 1955; 0744 GCT; 26°32.5'N, 115°11.5'W; sounding, 2300 fm; wind, 020°, force 6; weather, clear; sea, rough; wire angle, 10°.

12750

0	15.49	33.58	5.51	317	0	15.49	33.58	5.51	24.79	317	0.00
10	15.50	33.56	5.47	318	10	15.50	33.56	5.47	24.77	318	0.03
30	15.52	33.57	5.35	318	20	15.51	33.56	5.40	24.78	318	0.06
45	13.91	33.58	5.52	284	30	15.52	33.57	5.35	24.78	318	0.10
60	12.50	33.58	3.93	258	50	13.36	33.58	4.68	25.24	274	0.15
70	11.85	33.59	3.65	245	75	11.54	33.60	3.44	25.60	239	0.22
80	11.33	33.62	3.09	234	100	10.94	33.77	2.59	25.84	216	0.28
96	11.01	33.84u	2.61	-	150	10.28	34.14	1.92	26.25	178	0.38
105	10.89	33.80	2.58	212	200	10.14	34.42	1.18	26.50	155	0.46
120	10.99	34.00	2.03	200	250	9.49	34.41	0.72	26.60	145	0.54
149	10.28	34.14	1.93	178	300	8.83	34.42	0.55	26.71	134	0.61
179	10.33	34.42	-	158	400	7.74	34.42	0.34	26.87	119	0.74
238	9.62	34.41	0.76	147	500	6.91	34.43	0.21	27.00	106	0.86
305	8.78	34.42	0.53	133	600	6.18	34.44	0.18	27.11	96	0.96
423	7.54	34.42	0.32	116	700	5.46	34.45	0.21	27.20	88	1.06
561	6.42	34.44	0.18	100							
703	5.44	34.45	0.22	87							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T_3}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T_3}{10 \text{ cm/g}}$	dyn. m

127.55

SPENCER F. BAIRD; February 20, 1955; 0410 GCT; 26°20'N, 115°28'W; sounding, 2000 fm; wind, 020°, force 5; weather, partly cloudy; sea, rough; wire angle, 28°.

0	16.24	33.68	5.50	325	0	16.24	33.68	5.50	24.70	325	0.00
9	16.26	33.67	5.53	326	10	16.26	33.66	5.53	24.68	327	0.03
27	16.27	33.66	5.52	327	20	16.26	33.66	5.53	24.68	327	0.06
40	16.16	33.62	5.60	328	30	16.25	33.65	5.56	24.68	328	0.10
54	15.63	33.62	5.62	317	50	15.83	33.62	5.62	24.74	321	0.16
62	15.08	33.61	5.85	306	75	13.80	33.49	5.04	25.08	289	0.24
71	14.40	33.51	5.48	299	100	11.57	33.62	3.30	25.64	236	0.31
84	12.27	33.47	4.04	262	150	10.20	33.92	2.40	26.09	193	0.42
92	11.46	33.45	3.97	249	200	10.58	34.38	1.20	26.39	165	0.50
104	11.56	33.72	3.03	230	250	10.18	34.53	0.58	26.58	147	0.58
129	10.90	33.73	2.89	218	300	9.60	34.54	0.38	26.68	138	0.66
152	10.20	33.96	-	190	400	8.36	34.46	0.27	26.82	124	0.79
197	10.56	34.35	1.28	167	500	7.10	34.41	0.21	26.96	110	0.92
251	10.18	34.54	0.56	146	600	(6.10)	(34.43)	(0.24)	(27.12)	(96)	(1.03)
347	9.05	34.51	0.32	130							
465	7.44	34.41	0.21	115							
592	6.21	34.43	0.22	98							

130.30

SPENCER F. BAIRD; February 19, 1955; 0314 GCT; 26°29.5'N, 113°32'W; sounding, 45 fm; wind, 280°, force 5; weather, clear; sea, rough; wire angle, 13°.

0	16.77	33.87	5.36	323	0	16.77	33.87	5.36	24.73	323	0.00
10	16.76	33.86	4.76	323	10	16.76	33.86	4.76	24.72	323	0.03
20	16.79	33.86	5.21	324	20	16.79	33.86	5.21	24.71	324	0.06
25	16.76	33.84	5.23	325	30	16.54	33.86	5.21	24.77	319	0.10
30	16.54	33.86	5.21	319	50	14.09	33.71	3.91	25.20	278	0.16
35	15.85	33.80	4.84	308							
40	15.26	33.78	4.59	297							
45	14.65	33.72	4.19	289							
50	14.09	33.71	3.91	278							
59	12.78	33.79	2.97	247							

130.35

SPENCER F. BAIRD; February 19, 1955; 0605, 0621 GCT; 26°20'N, 113°50'W; sounding, 175 fm; wind, 350°, force 5; weather, missing; sea, rough; wire angle, 09°, 07°.

0	15.13	33.65	5.63	304	0	15.13	33.65	5.63	24.92	304	0.00
10	15.12	33.65	5.38	304	10	15.12	33.65	5.38	24.92	304	0.03
20	14.12	33.66	4.80	283	20	14.12	33.66	4.80	25.15	283	0.06
25	13.79	33.64	4.47	277	30	13.10	33.65	3.84	25.35	263	0.09
30	13.10	33.65	3.84	263	50	12.14	33.82	2.56	25.66	234	0.14
35	12.66	33.66	3.50	255	75	11.32	33.93	2.23	25.90	211	0.19
45	12.34	33.74	2.73	243	100	11.06	34.07	1.86	26.06	196	0.24
55	11.89	33.88	-	224	150	11.33	34.41	0.80	26.27	176	0.34
64	11.49	33.90	2.37	216	200	11.05	34.60	0.52	26.48	156	0.42
					250	10.40	34.59	0.40	26.59	146	0.50
99	11.05	34.07	1.88	196	300	(9.74)	(34.51)	(0.38)	(26.64)	(141)	(0.57)
123	11.45	34.34	1.20	183							
161	11.28	34.45	0.74	172							
199	11.05	34.60	0.52	156							
238	10.50	34.60	0.48	147							
243	10.50	34.60	0.43	147							
298	9.78	34.52	0.38	141							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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SPENCER F. BAIRD; February 19, 1955; 0947, 1051 GCT; 26°07'N, 114°12'W; sounding, 1550 fm; wind, 340°, force 4; weather, clear; sea, rough; wire angle, 33°, 32°.

130.40

0	16.69	33.83	5.58	324	0	16.69	33.83	5.58	24.71	324	0.00
9	16.69	33.75	5.41	330	10	16.70	33.75	5.41	24.66	330	0.03
26	16.70	33.80	5.27	327	20	16.70	33.78	5.31	24.68	328	0.07
47	16.17	33.72	5.35	321	30	16.68	33.81	5.23	24.70	325	0.10
60	15.85	33.68	5.23	317	50	16.03	33.71	5.32	24.77	319	0.16
					75	15.25	33.68	4.84	24.92	304	0.24
66	15.57	33.68	4.95	311	100	12.14	33.72	3.01	25.58	241	0.31
78	15.10	33.68	4.85	301	150	11.52	34.29	1.19	26.15	188	0.42
97	12.45	33.69	3.45	249	200	10.91	34.44	0.99	26.38	166	0.51
125	11.47	34.10	1.68	201	250	10.48	34.52	0.86	26.51	153	0.59
143	11.54	34.24	1.21	192	300	9.63	34.52	0.53	26.66	139	0.67
190	10.98	34.42	1.02	168	400	8.11	34.48	0.30	26.87	119	0.80
255	10.41	34.52	-	152	500	7.02	34.44	0.22	26.99	108	0.92
345	8.85	34.51	0.37	128	600	6.20	34.42	0.22	27.08	99	1.03
467	7.38	34.45	0.26	111	700	5.58	34.42	0.23	27.17	90	1.13
636	5.98	34.41	0.22	96	800	5.10	34.46	0.26	27.26	82	1.22
849	4.87	34.48	0.27	79	1000	4.32	34.53	0.30	27.39	69	1.39
1151	3.89	34.58	0.34	61							

SPENCER F. BAIRD; February 19, 1955; 1638 GCT; 25°45'N, 114°53'W; sounding, 2150 fm; wind, 010°, force 4; weather, partly cloudy; sea, rough; wire angle, 19°.

130.50

0	16.58	33.71	5.70	331	0	16.58	33.71	5.70	24.64	331	0.00
10	16.56	33.69	5.70	331	10	16.56	33.69	5.70	24.64	331	0.03
29	16.59	33.59	5.65	339	20	16.55	33.64	5.68	24.59	335	0.07
53	16.52	33.66	5.28	333	30	16.59	33.59	5.65	24.56	339	0.10
67	16.40	33.63	6.10	332	50	16.53	33.66	5.30	24.62	333	0.17
76	16.34	33.68	6.09	328	75	16.34	33.68	6.09	24.67	328	0.25
90	12.48	33.35	4.77	275	100	11.27	33.34	4.64	25.46	253	0.32
112	11.03	33.34	4.55	250	150	10.31	33.87	3.05	26.04	198	0.44
143	10.33	33.80	3.06	204	200	10.14	34.21	1.02	26.34	170	0.53
166	10.28	34.00	0.73	188	250	9.75	34.46	1.11	26.59	145	0.61
220	9.98	34.33	1.18	158	300	9.30	34.52	0.90	26.72	134	0.68
296	9.36	34.52	-	134	400	8.22	34.52	0.41	26.88	118	0.82
400	8.22	34.52	0.41	118	500	7.20	34.52	0.28	27.02	105	0.93
542	6.85	34.51	0.24	100	600	6.40	34.52	0.24	27.14	94	1.04
737	5.40	34.54	0.24	80	700	5.67	34.54	0.24	27.25	83	1.13
972	4.35	34.53	0.39	69	800	5.04	34.54	0.27	27.32	76	1.22
1293	3.41	34.64	0.68	52	1000	4.21	34.55	0.47	27.44	64	1.37

SPENCER F. BAIRD; February 19, 1955; 2137 GCT; 25°27.5'N, 115°26'W; sounding, 2150 fm; wind, 070°, force 4; weather, partly cloudy; sea, rough; wire angle, 20°.

130.60

0	17.49	33.94	5.38	335	0	17.49	33.94	5.38	24.60	335	0.00
10	17.48	33.88	5.35	339	10	17.48	33.88	5.35	24.56	339	0.03
28	17.41	33.86	5.39	338	20	17.47	33.87	5.38	24.56	339	0.07
51	16.22	33.61	5.52	330	30	17.36	33.85	5.41	24.57	338	0.10
65	15.40	33.48	5.48	322	50	16.22	33.61	5.51	24.65	330	0.17
75	13.80	33.38	5.31	297	75	13.80	33.38	5.31	25.00	297	0.25
88	12.52	33.24	5.34	283	100	12.49	33.28	5.34	25.38	261	0.32
110	10.54	33.36	5.23	240	150	9.83	33.88	3.01	26.12	190	0.43
141	9.93	33.79	3.24	198	200	9.40	34.25	2.00	26.49	155	0.52
163	9.60	34.00	2.90	177	250	8.97	34.30	1.26	26.60	145	0.60
215	9.30	34.27	1.64	152	300	8.39	34.31	0.91	26.70	136	0.67
290	8.50	34.31	-	137	400	7.48	34.35	0.57	26.86	120	0.80
393	7.52	34.35	0.57	120	500	6.65	34.41	0.41	27.02	105	0.92
534	6.42	34.42	0.30	101	600	6.00	34.44	0.28	27.13	94	1.02
727	5.27	34.46	0.28	84	700	5.40	34.46	0.28	27.21	86	1.12
961	4.24	34.48	0.45	72	800	4.92	34.47	0.34	27.28	80	1.21
1285	3.38	34.62	0.74	53	1000	4.12	34.48	0.48	27.38	71	1.38

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m	

133.25

SPENCER F. BAIRD; February 18, 1955; 1330 GCT; 26°03'N, 112°50.5'W; sounding, 55 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 03°.

0	16.93	33.84	5.45	329	0	16.93	33.84	5.45	24.66	329	0.00
10	16.92	33.84	5.51	328	10	16.92	33.84	5.51	24.67	328	0.03
15	16.94	33.86	5.56	327	20	16.92	33.92	5.45	24.72	323	0.06
20	16.92	33.92	5.45	323	30	16.75	33.86	5.27	24.72	323	0.10
25	16.86	33.86	5.27	326	50	14.94	33.68	4.42	24.98	298	0.16
30	16.75	33.86	5.27	323	75	13.09	33.85	2.93	25.50	249	0.23
35	16.37	33.83	5.01	317	100	(12.65)	(34.17)	(1.50)	(25.84)	(217)	(0.29)
45	15.38	33.64	4.99	310							
55	14.56	33.73	3.90	286							
64	13.36	33.76	3.22	260							
79	12.93	33.93	2.62	240							
98	12.65	34.15	1.55	219							

133.30

SPENCER F. BAIRD; February 18, 1955; 1620 GCT; 25°51'N, 113°14.5'W; sounding, 58 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 08°.

0	17.03	33.89	5.27	329	0	17.03	33.89	5.27	24.66	329	0.00
10	17.02	33.93	5.19	324	10	17.02	33.93	5.19	24.71	324	0.03
15	17.03	33.93	5.28	324	20	17.00	33.91	5.28	24.70	325	0.06
20	17.00	33.91	5.28	325	30	16.57	33.91	5.24	24.80	315	0.10
25	16.88	33.93	5.33	321	50	14.25	33.77	3.82	25.20	278	0.16
30	16.57	33.91	5.24	315							
35	16.29	33.88	4.96	312							
40	15.78	33.83	4.76	304							
45	14.98	33.82	4.28	288							
50	14.25	33.77	3.82	278							

133.40

SPENCER F. BAIRD; February 18, 1955; 2030 GCT; 25°38'N, 113°50'W; sounding, 1550 fm; wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 27°.

0	16.31	33.75	5.54	322	0	16.31	33.75	5.54	24.74	322	0.00
9	16.31	33.79	5.60	318	10	16.31	33.79	5.60	24.78	318	0.03
27	15.28	33.62	5.43	309	20	15.80	33.71	5.54	24.82	314	0.06
40	14.66	33.68	5.48a)	292	30	15.10	33.63	5.46	24.91	305	0.09
52	14.22	33.69	5.01	283	50	14.29	33.69	5.08	25.13	284	0.15
60	13.22	33.58	4.50	271	75	12.31	33.72	3.40	25.56	244	0.22
68	12.70	33.64	3.89	257	100	11.78	33.95	2.11	25.84	217	0.28
80	12.45	33.83	2.84	238	150	10.82	34.34	1.31	26.32	172	0.38
88	11.96	33.92	2.23	222	200	10.62	34.51	0.70	26.48	156	0.46
100	11.78	33.95	2.11	217	250	10.06	34.54	0.70	26.61	144	0.54
125	11.20	34.18	1.50	190	300	9.40	34.51	0.47	26.68	137	0.61
148	10.82	34.34	1.31	172	400	8.24	34.47	0.20	26.84	122	0.74
197	10.64	34.50	0.70	157	500	7.31	34.47	0.19	26.98	109	0.86
254	10.00	34.54	0.70	143	600	6.38	34.48	0.31	27.11	96	0.96
355	8.72	34.47	0.26	128							
476	7.51	34.47	0.16	112							
603	6.35	34.48	0.32	96							

137.23

SPENCER F. BAIRD; February 18, 1955; 0823 GCT; 25°34.5'N, 112°19'W; sounding, 43 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	16.35	33.78	5.48	320	0	16.35	33.78	5.48	24.75	320	0.00
5	16.35	33.71	5.04	326	10	16.35	33.75	5.35	24.73	323	0.03
10	16.35	33.75	5.35	323	20	16.12	33.78	5.17	24.80	315	0.06
15	16.20	33.77	5.19	318	30	15.22	33.80	4.34	25.02	295	0.09
20	16.12	33.78	5.17	315							
25	15.28	33.84	4.34	293							
30	15.22	33.80	4.34	295							
35	14.45	33.77	3.80	281							
39	14.39	33.86	3.42	274							
44	14.24	33.94	3.24	265							

a) Mean value of 5.31 and 5.66 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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SPENCER F. BAIRD; February 18, 1955; 0435 GCT; 25°19.5'N, 112°45'W; sounding, 190 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 21°.

137.30

0	17.33	33.92	5.35	332	0	17.33	33.92	5.35	24.63	332	0.00
10	17.23	33.86	5.66	334	10	17.23	33.86	5.66	24.60	334	0.03
15	16.73	33.93	5.15	318	20	16.49	33.90	5.23	24.81	315	0.07
19	16.50	33.90	5.23	315	30	16.00	33.88	4.57	24.91	306	0.10
24	16.43	33.93	5.24	311	50	15.03	33.94	3.79	25.17	281	0.16
28	16.16	33.88	5.27	308	75	14.04	33.94	3.04	25.38	261	0.22
33	15.78	33.89	4.06	300	100	13.28	34.00	2.50	25.58	242	0.29
42	15.40	33.89	-	292	150	12.16	34.46	0.57	26.16	186	0.40
51	15.00	33.94	3.77	280	200	11.38	34.63	0.27	26.44	160	0.48
60	14.73	33.90	3.61	277	250	10.84	34.61	0.16	26.52	152	0.56
74	14.08	33.94	3.06	261							
92	13.54	33.95	2.70	250							
115	12.86	34.11	2.04	226							
151	12.16	34.47	0.56a)	185							
187	11.54	34.63	0.49b)	163							
224	11.05	34.62	0.14	155							
281	10.67	34.61	0.16	150							

SPENCER F. BAIRD; February 17, 1955; 1634 GCT; 24°56.5'N, 113°24'W; sounding, 1800 fm; wind, 340°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°.

137.40

0	18.49	34.04	4.87	351	0	18.49	34.04	4.87	24.43	351	0.00
10	18.46	34.10	4.90	346	10	18.46	34.10	4.90	24.48	346	0.04
30	17.72	33.96	5.02	338	20	18.20	34.08	4.97	24.52	342	0.07
40	16.70	33.85	4.96	323	30	17.72	33.96	5.02	24.56	338	0.10
49	16.62	33.85	5.08	321	50	16.60	33.85	5.10	24.74	321	0.17
59	16.42	33.82	5.11	319	75	15.78	33.80	4.74	24.90	306	0.25
68	16.36	33.85	5.13	315	100	12.92	33.75	3.44	25.46	253	0.32
78	15.02	33.70	4.28	298	150	12.04	34.42	1.10	26.15	187	0.43
87	14.07	33.58	3.93	287	200	11.40	34.53	0.50	26.36	167	0.52
96	13.12	33.63	3.61	265	250	10.72	34.64	0.26	26.56	148	0.60
120	12.94	34.26	1.58	216	300	10.06	34.61	0.22	26.66	139	0.68
148	12.05	34.41	1.10	188	400	8.82	34.55	0.19	26.82	124	0.81
194	11.44	34.52	0.55	169	500	7.63	34.51	0.12	26.96	110	0.94
251	10.72	34.64	0.26	148	600	(6.37)	(34.44)		(27.08)	(100)	(1.05)
349	9.40	34.57	0.22	132							
464	8.06	34.53	0.10	115							
585	6.56	34.45	0.21	101							

SPENCER F. BAIRD; February 17, 1955; 0455 GCT; 24°45'N, 112°25'W; sounding, 60 fm; wind, 240°, force 1; weather, clear; sea, smooth; wire angle, 03°.

140.30

0	18.74	34.03	5.01	357	0	18.74	34.03	5.01	24.37	357	0.00
10	18.46	34.07	5.10	348	10	18.46	34.07	5.10	24.46	348	0.04
15	18.36	34.02	4.72	349	20	18.29	34.04	5.06	24.48	346	0.07
20	18.29	34.04	5.06	346	30	18.20	34.01	5.39	24.48	346	0.10
25	18.24	34.00	5.08	348	50	17.08	33.92	5.42	24.68	327	0.17
30	18.20	34.01	5.39	346	75	14.88	33.86	4.62	25.14	283	0.25
35	18.15	34.04	5.27	343	100	(13.17)	(34.16)	(1.50)	(25.73)	(227)	(0.31)
45	17.25	33.94	5.35	329							
54	16.96	33.89	5.45	326							
65	16.52	33.86	5.42	319							
79	13.13	33.86	3.73	249							
98	13.18	34.15	1.67	228							

a) Mean value of 0.38 and 0.73 ml/L.

b) Mean value of 0.26 and 0.72 ml/L.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{10}^{-5} T_3$	Z	T	S	O ₂	σ_t	$\delta T_{10}^{-5} T_3$	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

140.35

SPENCER F. BAIRD; February 17, 1955; 0750 GCT; 24°35'N, 112°44'W; sounding, 700 fm; wind, 240°, force 1; weather, clear; sea, slight; wire angle, 07°.

0	18.50	34.06	5.20	350	0	18.50	34.06	5.20	24.44	350	0.00
10	18.29	34.04	4.90	346	10	18.29	34.04	4.90	24.48	346	0.04
30	17.17	33.94	5.28	326	20	17.39	33.99	5.24	24.67	328	0.07
40	16.47	33.81	5.10	321	30	17.17	33.94	5.28	24.69	326	0.10
50	16.26	33.78	5.24	318	50	16.26	33.78	5.24	24.77	318	0.17
60	16.18	33.78	5.20	316	75	13.82	33.69	3.64	25.23	275	0.24
70	14.09	33.63	3.85	284	100	12.50	33.95	2.59	25.70	230	0.30
79	13.72	33.75	3.50	268	150	12.22	34.57	0.80	26.22	180	0.41
89	13.62	33.93	2.94	253	200	11.70	34.69	0.25	26.42	162	0.50
98	12.54	33.95	2.62	231	250	10.80	34.67	0.26	26.58	147	0.57
122	12.00	34.21	1.83	202	300	10.08	34.64	0.24	26.68	137	0.65
152	12.22	34.58	0.72	179	400	8.60	34.55	0.18	26.85	121	0.78
200	11.70	34.69	0.25	162	500	7.47	34.52	0.14	26.98	108	0.90
258	10.70	34.67	0.27	145	600	6.76	34.51	0.14	27.08	99	1.01
360	9.16	34.57	0.20	127							
478	7.62	34.52	0.14	110							
601	6.74	34.51	0.14	99							

140.40

SPENCER F. BAIRD; February 17, 1955; 1112 GCT; 24°23'N, 113°03'W; sounding, 1850 fm; wind, 340°, force 1; weather, fog; sea, slight; wire angle, 04°.

0	18.92	34.07	5.27	358	0	18.92	34.07	5.27	24.35	358	0.00
10	18.85	34.08	5.08	356	10	18.85	34.08	5.08	24.38	356	0.04
30	17.77	33.95	5.43	340	20	18.48	34.04	5.18	24.44	350	0.07
40	17.49	33.94	5.01	334	30	17.77	33.95	5.43	24.54	340	0.11
49	16.82	33.87	5.27	324	50	16.80	33.86	5.26	24.71	324	0.17
59	16.47	33.80	5.06	322	75	14.72	33.63	4.57	24.99	298	0.25
68	15.63	33.68	5.08	312	100	12.82	33.94	2.74	25.62	238	0.32
78	14.26	33.62	3.83	289	150	11.62	34.37	1.16	26.19	184	0.42
87	13.83	33.89	3.18	260	200	10.72	34.49	0.78	26.45	159	0.51
96	13.10	33.90	2.89	245	250	10.20	34.58	0.36	26.61	144	0.59
120	12.31	34.14	1.93	213	300	9.62	34.58	0.23	26.72	134	0.66
148	11.68	34.37	1.20	185	400	8.45	34.54	0.14	26.86	120	0.79
196	10.78	34.48	0.83	160	500	7.37	34.47	0.14	26.97	110	0.91
253	10.18	34.58	0.34	143	600	(6.41)	(34.48)	(0.16)	(27.10)	(97)	(1.02)
354	8.98	34.58	0.17	124							
472	7.62	34.47	0.13	114							
596	6.45	34.48	0.16	97							

143.26

SPENCER F. BAIRD; February 16, 1955; 0449 GCT; 24°19.5'N, 111°49.5'W; sounding, 40 fm; wind, 060°, force 2; weather, clear; sea, slight; wire angle, 02°.

0	17.52	33.95a)	5.24b)	334	0	17.52	33.95	5.24	24.61	334	0.00
10	17.55	33.94	5.29	336	10	17.55	33.94	5.29	24.59	336	0.03
15	17.46	33.91	5.30	336	20	17.15	33.89	5.16	24.64	331	0.07
20	17.18	33.89	5.16	331	30	16.75	33.86	5.23	24.72	323	0.10
25	16.86	33.92	5.19	322	50	16.02	33.94	4.67	24.95	302	0.18
30	16.75	33.86	5.23	323							
35	16.65	33.92	5.16	317							
40	16.41	33.92	4.90	311							
45	16.29	33.95	4.82	307							
50	16.02	33.94	4.67	302							

a) Mean value of 33.93 and 33.97‰.

b) Mean value of 5.13 and 5.36 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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SPENCER F. BAIRD; February 16, 1955; 0230 GCT; 24°12'N, 112°04.5'W; sounding, 110 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 05°.

143.30

0	19.33	34.12	5.36	364	0	19.33	34.12	5.36	24.29	364	0.00
10	19.32	34.12	5.52	364	10	19.32	34.12	5.52	24.29	364	0.04
15	19.30	34.10	5.27	365	20	19.22	34.13	5.36	24.32	362	0.07
20	19.22	34.13	5.36	362	30	19.18	34.11	5.36	24.32	362	0.11
25	19.20	34.14	5.39	360	50	16.80	33.82	5.51	24.66	330	0.18
30	19.18	34.11	5.36	362	75	14.53	33.94	3.13	25.27	271	0.25
35	18.82	34.05	5.25	357	100	13.46	34.26	1.58	25.75	226	0.32
45	18.31	34.04	5.49	346	150	12.30	34.64	0.34	26.27	176	0.42
55	15.14	33.59	5.51	308							
64	14.32	33.62	4.53	290							
78	14.21	34.04	2.66	257							
97	13.52	34.23	1.69	229							
116	13.16	34.43	1.13	207							
150	12.30	34.64	0.34	176							

SPENCER F. BAIRD; February 15, 1955; 2305 GCT; 24°01'N, 112°23'W; sounding, 1200 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 24°.

143.35

0	19.00	34.11	5.29	357	0	19.00	34.11	5.29	24.36	357	0.00
10	18.88	34.08	5.70	357	10	18.88	34.08	5.70	24.37	357	0.04
28	17.99	33.97	5.21	344	20	18.42	34.02	5.42	24.43	351	0.07
42	17.10	33.89	5.30	329	30	17.86	33.96	5.23	24.53	341	0.11
55	16.02	33.78	4.99	313	50	16.44	33.83	5.12	24.77	319	0.17
64	15.58	33.70	4.85	310	75	13.90	33.59	4.38	25.14	284	0.25
72	14.32	33.59	4.54	292	100	12.44	33.74	3.29	25.55	244	0.31
86	12.83	33.58	3.85	264	150	11.20	34.18	1.79	26.12	190	0.42
94	12.54	33.69	3.53	250	200	10.80	34.40	1.18	26.37	167	0.52
108	12.34	33.78	3.16	240	250	10.35	34.50	0.51	26.53	152	0.60
134	11.50	34.09	2.02	202	300	9.78	34.54	0.31	26.65	140	0.67
160	11.05	34.22	1.70	185	400	8.67	34.54	0.24	26.84	122	0.81
214	10.70	34.46	0.87	161	500	7.50	34.48	0.19	26.95	111	0.93
276	10.04	34.52	0.37	146	600	6.63	34.48	0.16	27.07	100	1.04
384	8.84	34.55	0.24	124							
513	7.37	34.47	0.18	109							
649	6.35	34.49	0.14	95							

SPENCER F. BAIRD; February 15, 1955; 1018, 1030 GCT; 24°00'N, 111°05.5'W; sounding, 110 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 00°, 00°.

147.20

0	18.80	34.35	5.16	335	0	18.80	34.35	5.16	24.60	335	0.00
10	18.84	34.34	5.08	337	10	18.84	34.34	5.08	24.58	337	0.03
15	18.60	34.37	5.06	329	20	18.25	34.50	4.81	24.84	312	0.07
20	18.25	34.50	4.81	312	30	18.05	34.62	4.67	24.98	298	0.10
25	18.23	34.53	4.67	310	50	17.13	34.49	4.52	25.11	286	0.16
					75	16.56	34.80	2.86	25.48	251	0.22
30	18.05	34.62	4.67	298	100	14.30	34.60	1.56	25.83	218	0.28
35	18.04	34.60	4.64	299	150	11.95	34.60	0.54	26.31	172	0.38
45	17.09	34.41	4.57	291							
54	17.25	34.58	4.43	282							
64	17.62	34.84	3.97	272							
78	16.22	34.78	2.66	244							
98	14.43	34.61	1.64	220							
117	13.45	34.54	1.12	205							
151	11.89	34.60	0.52	171							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

147.25

SPENCER F. BAIRD; February 15, 1955; 1330 GCT; 23°46'N, 111°27.5'W; sounding, 245 fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 16°.

0	18.74	34.07	5.16	354	0	18.74	34.07	5.16	24.40	354	0.00
10	18.75	34.05	5.13	356	10	18.75	34.05	5.13	24.38	356	0.04
15	18.75	34.11u	5.21	-	20	18.70	34.05	5.14	24.40	354	0.07
20	18.70	34.18u	5.14	-	30	18.39	34.04	5.19	24.46	348	0.11
25	18.63	34.05	5.12	353	50	17.07	33.95	5.50	24.72	324	0.17
30	18.39	34.04	5.19	348	75	14.11	33.91	3.27	25.34	264	0.25
39	17.44	33.94	5.14	333	100	13.21	34.24	1.86	25.78	222	0.31
48	17.08	33.95	5.50	324	150	12.48	34.66	0.41	26.25	177	0.41
62	15.17	33.80	4.36	294	200	11.68	34.69	0.28	26.43	161	0.50
76	14.05	33.92	3.23	262	250	10.99	34.67	0.23	26.54	150	0.58
94	13.26	34.12	2.10	232	300	10.20	34.64	0.21	26.66	139	0.65
117	13.05	34.49	0.90	201							
154	12.39	34.67	0.38	175							
190	11.80	34.69	0.29	163							
238	11.18	34.67	0.24	153							
308	10.09	34.64	0.20	137							
385	9.27	34.61	0.19	127							

147.30

SPENCER F. BAIRD; February 15, 1955; 1641 GCT; 23°33.5'N, 111°40.5'W; sounding, 260 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	19.38	34.13	4.79	365	0	19.38	34.13	4.79	24.28	365	0.00
10	19.38	34.12	4.97	366	10	19.38	34.12	4.97	24.27	366	0.04
15	19.39	34.13	5.09	365	20	19.37	34.14	5.12	24.29	364	0.07
20	19.37	34.14	5.12	364	30	19.11	34.10	4.85	24.32	361	0.11
25	19.32	34.14	5.00	363	50	18.88	34.01	4.98	24.31	362	0.18
29	19.13	34.11	4.84	361	75	15.80	33.49	5.50	25.66	329	0.27
39	19.04	34.04	4.86	363	100	12.52	34.01	3.78	25.74	226	0.34
48	18.93	34.02	4.97	362	150	11.46	34.28	1.50	26.15	187	0.44
61	18.75	33.56u	5.00	-	200	11.40	34.58	0.79	26.39	164	0.53
75	15.80	33.49	5.50	329	250	10.83	34.61	0.42	26.52	152	0.62
93	13.42	33.73	4.51	264	300	9.88	34.61	0.19	26.69	136	0.69
115	11.63	34.28	3.06	191							
151	11.44	34.28	1.43	187							
187	11.44	34.56	0.88	166							
231	11.15	34.60	0.53	158							
301	9.85	34.61	0.19	136							
377	9.02	34.57	0.15	126							

150.19

SPENCER F. BAIRD; February 15, 1955; 0510 GCT; 23°24'N, 110°39'W; sounding, 100 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 07°.

0	19.37	34.38	5.11	347	0	19.37	34.38	5.11	24.47	347	0.00
10	19.35	34.36	5.37	348	10	19.35	34.36	5.37	24.46	348	0.04
15	18.47	34.25	4.88	335	20	17.88	34.14	5.17	24.66	329	0.07
20	17.88	34.14	5.17	329	30	17.47	34.18	4.93	24.79	316	0.10
25	17.72	34.19	5.12	321	50	15.48	34.40	3.18	25.43	256	0.16
30	17.47	34.18	4.93	316	75	14.20	34.56	1.46	25.82	219	0.22
35	16.69	34.07	4.75	306	100	13.70	34.60	1.12	25.96	206	0.27
45	15.00	34.05	-	272	150	12.47	34.65	0.55	26.25	178	0.37
55	15.75	34.63	2.66	245							
64	14.93	34.49	2.13	238							
79	14.06	34.57	1.36	215							
98	13.76	34.60	1.16	206							
117	13.04	34.61	0.89	192							
150	12.47	34.65	0.55	178							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{3,10}$	Z	T	S	O ₂	σ_t	$\delta T_{3,10}$	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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SPENCER F. BAIRD; February 15, 1955; 0112 GCT; 23°12'N, 111°01.5'W; sounding, 780 fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.

150.25

0	19.5	34.24	5.16	360	0	19.5	34.24	5.16	24.33	360	0.00
10	19.15	34.22	5.42	353	10	19.15	34.22	5.42	24.41	353	0.04
30	16.33	33.94	5.40	308	20	17.68	34.16	5.42	24.54	340	0.07
45	15.75	33.94	4.81	295	30	16.33	33.94	5.40	24.88	308	0.10
59	15.14	33.96	3.84	281	50	15.51	33.94	4.44	25.07	290	0.16
69	14.65	34.09	3.14	262	75	13.84	33.99	2.96	25.46	253	0.23
79	13.40	33.95	2.86	247	100	13.56	34.47	1.09	25.89	212	0.29
93	13.62	34.39	1.36	220	150	12.30	34.64	0.54	26.27	176	0.39
103	13.51	34.49	1.08	210	200	11.64	34.68	0.40	26.43	161	0.47
117	13.05	34.54	0.96	197	250	10.87	34.65	0.27	26.54	150	0.55
145	12.37	34.62	0.57	178	300	10.18	34.62	0.20	26.65	140	0.63
175	12.05	34.69	0.49	167	400	8.73	34.59	0.15	26.86	120	0.76
233	11.12	34.66	0.30	153	500	7.52	34.58	0.14	27.03	104	0.88
301	10.15	34.62	0.19	140							
418	8.54	34.59	0.14	117							
555	6.84	34.57	0.14	95							

SPENCER F. BAIRD; February 14, 1955; 2133 GCT; 23°02'N, 111°20.5'W; sounding, 1400 fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 20°.

150.30

0	19.41	34.15	5.18	365	0	19.41	34.15	5.18	24.28	365	0.00
10	19.15	34.14	5.07	359	10	19.15	34.14	5.07	24.35	359	0.04
29	18.05	34.10	5.43	336	20	18.64	34.13	5.18	24.46	348	0.07
43	17.07	33.94	5.27	325	30	18.00	34.09	5.43	24.60	335	0.11
56	16.92	34.01	5.31	316	50	16.97	34.00	5.29	24.78	318	0.17
65	16.80	33.95	5.30	318	75	16.36	34.01	4.56	24.92	304	0.25
74	16.44	34.01	4.64	306	100	14.28	34.16	2.50	25.49	250	0.32
88	15.08	33.95	3.76	281	150	13.02	34.56	0.97	26.07	195	0.43
96	14.31	34.04	2.71	258	200	11.98	34.66	0.37	26.35	168	0.52
110	14.26	34.44	1.95	229	250	10.92	34.66	0.24	26.54	151	0.61
135	13.25	34.49	1.20	205	300	10.22	34.65	0.20	26.66	139	0.68
162	12.82	34.61	0.74	188	400	9.02	34.64	0.16	26.86	120	0.82
216	11.58	34.66	0.30	162	500	7.66	34.51	0.18	26.96	111	0.94
279	10.48	34.65	0.22	143	600	6.66	34.50	0.14	27.09	98	1.05
388	9.18	34.65	0.16	122							
518	7.45	34.50	0.18	108							
651	6.19	34.50	0.11	92							

SPENCER F. BAIRD; February 14, 1955; 0540 GCT; 22°55'N, 110°07'W; sounding, 175 fm; wind, 340°, force 1; weather, clear; sea, slight; wire angle, 00°.

153.16

0	20.60	34.51	5.04	368	0	20.60	34.51	5.04	24.25	368	0.00
3p	20.60	34.51	5.05	368	10	20.38	34.49	5.23	24.30	364	0.04
8p	20.40	34.48	5.19	365	20	20.07	34.42	5.17	24.32	361	0.07
10	20.38	34.49	5.23	364	30	19.77	34.34	5.30	24.34	359	0.11
15	20.32	34.49	5.19	362	50	17.72	34.34	4.46	24.83	313	0.18
20	20.07	34.42	5.17	361	75	16.92	35.06	3.48	25.59	240	0.24
24p	19.90	34.34	5.22	363	100	15.17	34.91	1.52	25.89	212	0.30
35p	19.69	34.34	5.32	358	150	13.26	34.80	0.50	26.20	182	0.40
51p	17.52	34.34	4.20	306	200	11.87	34.79	0.32	26.47	157	0.49
68p	17.09	35.06	3.67	244	250	10.97	34.68	0.22	26.55	150	0.57
89p	15.87	34.96	2.21	224							
121p	14.16	34.85	0.88	196							
167p	12.78	34.78	0.38	174							
199p	11.87	34.79	0.32	157							
256p	10.87	34.66	0.19	149							

S10

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5502

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

153.20

SPENCER F. BAIRD; February 14, 1955; 0820 GCT; 22°47.5'N, 110°22'W; sounding, 535 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 05°.

0	20.64	34.54		367	0	20.64	34.54		24.26	367	0.00
10	20.62	34.43		375	10	20.62	34.43		24.18	375	0.04
25	19.88	34.41		357	20	19.98	34.41		24.34	360	0.07
35	20.46	34.64		355	30	20.40	34.59		24.38	356	0.11
45	20.05	34.61		347	50	18.05	34.15		24.63	332	0.18
50	18.05	34.15		332	75	14.71	34.19		25.43	256	0.25
55	17.87	34.18		326	100	13.68	34.53		25.91	210	0.31
60	16.66	34.12		302	150	12.76	34.80		26.30	173	0.41
65	16.29	34.11		295	200	11.93	34.78		26.44	160	0.49
70	15.66	34.09		283	250	(11.09)	(34.72)		(26.56)	(148)	(0.57)
80	14.23	34.28		240							
99	13.71	34.52		211							
123	13.47	34.77		189							
147	12.84	34.80		174							
195	12.00	34.78		160							
234	11.52	34.72		156							
243	11.28	34.72		152							

153.20

SPENCER F. BAIRD; February 14, 1955; 0924 GCT; 22°47.5'N, 110°22'W; sounding, 525 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 13°.

0	20.62	34.48	5.06	371	0	20.62	34.48	5.06	24.22	371	0.00
20	20.18	34.43	5.04	363	10	20.38	34.46	5.05	24.27	366	0.04
30	20.45	34.39	4.92	373	20	20.18	34.43	5.04	24.30	363	0.07
40	20.30	34.52	4.92	360	30	20.45	34.39	4.92	24.20	373	0.11
50	19.81	34.50	4.75	349	50	19.81	34.50	4.75	24.45	349	0.18
59	18.95	34.17	4.04	352	75	16.30	34.13	2.98	25.03	294	0.26
69	17.26a)	34.12	3.61	316	100	13.68	34.47	1.33	25.86	215	0.33
79	15.91	34.14	2.66	284	150	12.95	34.78	0.42	26.25	178	0.43
89	14.27	34.24	2.00	243	200	11.92	34.78	0.26	26.44	159	0.51
114	13.35	34.70	0.76	191	250	11.27	34.73	0.14	26.54	150	0.56
143	13.07	34.78	0.45	180	300	10.58	34.68	0.12	26.62	143	0.67
191	12.08	34.78	0.29	162	400	9.09	34.62	0.10	26.82	123	0.81
248	11.29	34.73	0.14	151	500	7.72	34.56	0.12	26.99	108	0.93
348	9.88	34.64	0.11	144	600	(6.82)	(34.52)		(27.08)	(99)	(1.04)
465	8.09	34.58	0.10	122							
588	6.95	34.52	0.22	100							

153.30

SPENCER F. BAIRD; February 14, 1955; 1520 GCT; 22°22'N, 110°59.5'W; sounding, 1800 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 32°.

0	19.72	34.36	5.10	357	0	19.72	34.36	5.10	24.37	357	0.00
9	19.78	34.36	4.98	358	10	19.78	34.36	4.98	24.36	358	0.04
26	19.01	34.28	4.95	345	20	19.46	34.33	4.97	24.41	352	0.07
39	18.52	34.18	4.94	341	30	18.83	34.25	4.94	24.51	344	0.11
48	18.31	34.12	5.63b)	341	50	18.26	34.12	5.26	24.55	339	0.17
56	18.16	34.13	4.80	336	75	17.72	34.16	4.52	24.71	324	0.26
65	18.12	34.11	5.16	336	100	15.36	34.39	1.66	25.44	254	0.33
73	17.93	34.16	4.59	328	150	12.88	34.76	0.10	26.25	178	0.44
85	16.87	34.11	4.28	308	200	11.94	34.79	0.07	26.45	158	0.52
93	16.12	34.26	2.58	280	250	11.17	34.75	0.07	26.57	147	0.60
111	14.61	34.52	0.84	229	300	10.37	34.72	0.07	26.69	136	0.68
130	13.52	34.70	0.22	195	400	8.76	34.72	0.14	26.96	110	0.81
164	12.58	34.78	0.08	170	500	7.40	34.54	0.13	27.01	106	0.92
208	11.80	34.79	0.07	156							
290	10.54c)	34.72	0.07	139							
393	8.85	34.72	0.14	111							
511	7.24	34.51	0.13	105							

a) Mean value of 17.08 and 17.44°C.

b) Mean value of 5.53 and 5.73 ml/L.

c) Mean value of 10.49 and 10.60°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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SPENCER F. BAIRD; February 13, 1955; 2327 GCT; 22°39'N, 109°18'W; sounding, 1650 fm; wind, 040°, force 3; weather, clear; sea, moderate; wire angle, 18°.

157.10

0	20.87	34.94	5.07	344	0	20.87	34.94	5.07	24.51	344	0.00
10	20.88	34.86	5.04	349	10	20.88	34.86	5.04	24.45	349	0.04
30	20.83	34.83	5.06	351	20	20.85	34.84	5.05	24.44	350	0.07
44	20.75	34.80	5.06	351	30	20.83	34.83	5.06	24.43	351	0.10
53	20.76	34.86	4.96	347	50	20.76	34.83	5.00	24.46	348	0.17
62	20.76	34.87	4.80	346	75	20.49	34.78	4.67	24.49	345	0.26
71	20.68	34.78	4.76	351	100	18.38	34.80	3.20	25.04	293	0.34
80	20.03	34.80	4.45	332	150	13.76	34.70	0.48	26.02	199	0.47
94	18.65	34.74	3.34	304	200	12.52	34.80	0.11	26.35	168	0.56
103	18.25	34.81	3.13	289	250	11.32	34.79	0.53	26.57	147	0.64
126	14.90	34.64	0.93	227	300	10.54	34.76	0.45	26.69	136	0.72
153	13.65	34.71	0.42	197	400	9.29	34.72	0.17	26.87	119	0.85
204	12.43	34.80	0.09	166	500	8.05	34.67	0.14	27.02	104	0.97
265	11.00	34.78	0.59	142	600	6.92	34.60	0.12	27.13	94	1.07
372	9.66	-	0.21	-							
495	8.11	34.67	0.14	105							
627	6.61	34.58	0.12	92							

SPENCER F. BAIRD; February 13, 1955; 1757 GCT; 22°21'N, 109°56.5'W; sounding, 1750 fm; wind, 060°, force 2; weather, clear; sea, slight; wire angle, 10°.

157.20

0	20.01	34.42	4.64	360	0	20.01	34.42	4.64	24.34	360	0.00
10	19.61	34.56	5.04	340	10	19.61	34.56	5.04	24.55	340	0.04
30	18.99	34.43	5.47	334	20	19.31	34.51	5.23	24.58	336	0.07
45	17.52	34.36	4.64	304	30	18.99	34.43	5.47	24.61	334	0.10
54	16.04	34.12	3.35	289	50	16.50	34.18	3.90	25.02	295	0.16
64	16.86	34.58	4.26	273	75	15.46	34.34	3.09	25.37	262	0.24
73	15.82	34.40	3.18	264	100	13.87	34.43	1.13	25.79	221	0.30
84	14.05	34.07a)	2.69	251	150	12.48	34.63	0.62	26.22	180	0.40
97	13.94	34.41	1.16	224	200	12.04	34.75	0.26	26.41	163	0.48
106	13.60	34.46	1.09	214	250	11.40	34.66	0.34	26.46	158	0.57
129	12.98	34.57	0.71	194	300	10.66	34.61	0.36	26.56	149	0.65
158	12.34	34.65	0.60	176	400	9.09	34.61	0.19	26.82	124	0.79
209	11.98	34.75	0.21	161	500	7.74	34.59	0.29	27.01	106	0.91
272	11.08	34.62	0.43	156	600	6.81	34.57	0.28	27.12	95	1.01
381	9.38	34.61	0.17	128							
507	7.64	34.59	0.29	105							
641	6.45	34.56	0.26	91							

SPENCER F. BAIRD; February 13, 1955; 1126 GCT; 21°53'N, 110°41'W; sounding, 1800 fm; wind, 340°, force 2; weather, clear; sea, slight; wire angle, 25°.

157.30

0	20.70	34.59	4.81	365	0	20.70	34.59	4.81	24.28	365	0.00
10	20.71	34.60	4.64	364	10	20.71	34.60	4.64	24.29	364	0.04
28	20.43	34.52	4.42	363	20	20.57	34.53	4.42	24.29	364	0.07
37	20.23	34.50	4.63	360	30	20.38	34.52	4.48	24.31	362	0.11
46	19.89	34.42	4.76	356	50	19.50	34.34	4.75	24.41	353	0.18
55	18.85	34.24	4.74	345	75	16.68	34.00	4.16	24.84	312	0.26
63	17.92	34.16	4.71	328	100	14.08	33.96	3.08	25.39	260	0.34
71	17.12	34.06	4.22	317	150	12.54	34.58	0.76	26.17	185	0.45
80	16.01	33.91	4.09	303	200	11.45	34.67	0.34	26.45	159	0.54
88	14.60	33.79	3.38	283	250	10.69	34.65	0.22	26.58	147	0.62
107	13.85	34.25	2.87	234	300	10.06	34.64	0.18	26.68	137	0.69
129	13.28	34.50	0.88	205	400	8.92	34.63	0.15	26.86	120	0.82
165	12.15	34.61	0.66	175	500	7.76	34.56	0.10	26.98	109	0.94
210	11.30	34.67	0.29	155							
293	10.15	34.64	0.18	138							
392	9.02	34.63	0.15	121							
506	7.70	34.55	0.10	108							

a) Mean value of 34.04 and 34.10‰.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude		Longitude		Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters	
			North	West	North	West						T	S
80.51-B	III-17	0655	34°26.0'	120°32.0'	120°32.0'		100	330°	4	clear	rough	12.92	33.41
80.55-B	17	0430	34°19.0'	120°48.0'	120°48.0'		450	320°	3	clear	rough	12.16	33.36
80.60-B	17	0125	34°09.0'	121°09.0'	121°09.0'		1180	320°	3	clear	rough	12.32	33.26
80.70-B	16	2050	33°49.0'	121°51.0'	121°51.0'		1500	330°	3	clear	rough	12.58	33.40
80.80-B	16	1550	33°29.0'	122°32.0'	122°32.0'		2200	300°	5	partly cloudy	very rough	12.44	33.07
83.40-B	15	1650	34°14.0'	119°22.0'	119°22.0'		13	090°	1	haze	rough	13.18	33.39
83.43-B	15	1820	34°08.0'	119°34.0'	119°34.0'		150	270°	1	partly cloudy	moderate	13.02	33.36
83.51-B	15	2300	33°52.0'	120°08.5'	120°08.5'		100	280°	5	clear	moderate	12.44	33.42
83.60-B	16	0400	33°34.0'	120°45.0'	120°45.0'		850	280°	5	clear	rough	12.47	33.42
87.35-B	15	1145	33°50.0'	118°37.5'	118°37.5'		400	300°	1	cloudy	moderate	14.11	33.34
87.40-B	15	0900	33°40.0'	118°58.5'	118°58.5'		460	060°	1	partly cloudy	slight	13.50	33.36
87.50-B	14	2135	33°20.0'	119°39.5'	119°39.5'		35	280°	6	cloudy	very rough	12.52	33.48
90.28-B	11	1115	33°28.5'	117°46.5'	117°46.5'		38	calm		cloudy	slight	14.28	33.34
90.30-B	11	1245	32°24.0'	117°55.0'	117°55.0'		340	calm		cloudy	slight	14.11	33.34
90.37-B	11	1640	33°11.0'	118°23.0'	118°23.0'		640	270°	1	overcast	moderate	13.47	33.36
90.45-B	11	2045	32°54.5'	118°56.0'	118°56.0'		930	230°	1	partly cloudy	moderate	14.38	33.32
90.50-B	11	2325	32°44.5'	119°16.5'	119°16.5'		120	240°	1	partly cloudy	rough	14.32	33.37
90.60-B	12	0440	32°25.0'	119°57.0'	119°57.0'		450	240°	1	clear	moderate	14.28	33.32

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
90. 70-B	III-12	1000	32°04.0'	120°39.0'	2100	240°	1	drizzle	moderate	14.48	33.24a)
90. 80-B	12	1550	31°45.0'	121°19.0'	2100	340°	3	overcast	rough	14.18	33.13
90. 90-B	12	2100	31°25.0'	121°59.0'	2100	360°	2	partly cloudy	moderate	13.48	33.05
93. 27-B	11	0645	32°56.0'	117°19.0'	35	calm		drizzle	slight	13.82	33.35
93. 30-B	11	0515	32°50.0'	117°31.0'	450	180°	3	rain	moderate	14.20	33.33
93. 40-B	11	0000	32°30.0'	118°12.5'	940	180°	4	rain	moderate	14.31	33.38
93. 50-B	10	1930	32°10.0'	118°53.0'	640	140°	3	rain	slight	13.96	33.38
93. 60-B	10	1330	31°50.0'	119°34.0'	1250	180°	3	rain	slight	14.06	33.35
93. 70-B	10	0812	31°29.0'	120°14.0'	2080	180°	3	cloudy	moderate	14.52	33.29
97. 30-B	9	0500	32°15.0'	117°08.0'	30	-	1	partly cloudy	slight	13.60	33.38
97. 32-B	9	0635	32°11.0'	117°17.0'	740	140°	2	partly cloudy	slight	14.48	33.41
97. 40-B	9	1050	31°56.0'	117°50.0'	500	140°	1	partly cloudy	slight	14.34	33.32
97. 50-B	9	1605	31°35.0'	118°31.0'	1470	140°	1	partly cloudy	slight	14.26	33.34
97. 60-B	9	2055	31°15.0'	119°11.0'	2000	270°	2	partly cloudy	slight	14.58	33.38
97. 70-B	10	0230	30°55.0'	119°51.0'	2050	180°	2	partly cloudy	slight	14.44	33.31
100. 29-C	9	0415	31°42.0'	116°43.5'	-	-	-	missing	missing	14.05b)	33.46
100. 30-C	9	0500	31°40.0'	116°47.5'	207	170°	2	partly cloudy	slight	14.46	33.40

a) Mean value of 33.21 and 33.27%.

b) Alternate value, 13.35°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	S
100. 40-C	III-9	0930	31°21.0'	117°26.5'	1120	140°	1	partly cloudy	smooth	14.64	33.40
100. 50-C	9	1345	31°01.0'	118°07.0'	950	180°	1	partly cloudy	slight	15.52a)	33.39
100. 60-C	10	1915	30°38.5'	118°42.0'	1640	200°	2	cloudy	moderate	14.85b)	33.39
100. 70-C	11	0040	30°21.5'	119°26.0'	2000	220°	4	cloudy	moderate	15.34c)	33.32
100. 80-C	11	0540	30°02.0'	120°03.5'	2200	240°	3	cloudy	moderate	15.18	33.33
100. 90-C	11	1050	29°41.5'	120°40.5'	2150	240°	3	partly cloudy	rough	15.26	33.36
103. 30-C	12	1630	31°04.0'	116°25.0'	40	320°	3	partly cloudy	moderate	14.51d)	33.40
103. 35-C	12	1323	30°54.0'	116°47.5'	1110	320°	3	partly cloudy	moderate	14.40	33.40
103. 40-C	12	1030	30°44.5'	117°08.0'	900	340°	3	partly cloudy	moderate	15.32	33.36
103. 50-C	12	0600	30°25.0'	117°45.5'	1450	310°	3	clear	moderate	15.08	33.31
103. 60-C	12	0040	30°05.5'	118°23.5'	1900	280°	2	partly cloudy	moderate	14.76	33.35
103. 70-C	11	1936	29°43.5'	119°03.0'	2000	330°	3	partly cloudy	rough	14.64	33.47
107. 32-C	12	2145	30°25.0'	116°11.0'	133	210°	3	partly cloudy	moderate	15.04	33.39
107. 35-C	12	2340	30°20.0'	116°23.0'	1020	330°	4	partly cloudy	rough	15.41	33.40
107. 40-C	13	0230	30°07.5'	116°42.0'	1510	330°	5	cloudy	rough	15.56	33.32

a) Alternate value, 15.39°C.

b) Alternate value, 14.71°C.

c) Alternate value, 15.17°C.

d) Alternate value, 14.38°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
107.50-C	III-13	0750	29°50.0'	117°23.5'	1600	220° 5	overcast	rough	15.44 33.36
107.60-C	13	1330	29°27.5'	118°03.0'	1900	350° 4	overcast	rough	15.50 33.33
107.70-C	14	0815	29°11.0'	118°43.0'	1750	340° 5	overcast	rough	15.50 33.37
110.33-C	16	1820	29°49.0'	115°52.0'	58	320° 3	partly cloudy	rough	13.90 33.42
110.35-C	16	1645	29°46.0'	116°00.0'	800	340° 4	partly cloudy	rough	14.58 33.44
110.40-C	16	1340	29°39.0'	116°21.5'	1400	330° 3	partly cloudy	very rough	15.11 33.43
110.50-C	16	0755	29°18.0'	117°00.0'	1750	320° 4	clear	rough	15.39 33.34
110.60-C	16	0238	28°56.0'	117°37.5'	1950	330° 4	clear	rough	15.42 33.46
110.70-C	15	0720	28°37.0'	118°18.0'	1800	320° 5	clear	high	15.47 33.46
110.80-C	14	2352	28°16.5'	118°57.5'	2150	350° 6	cloudy	very rough	15.48 33.44
110.90-C	14	1830	27°57.5'	119°32.0'	2300	010° 4	partly cloudy	very rough	15.52 33.40
113.30-C	17	0339	29°23.0'	115°17.5'	30	320° 4	clear	rough	12.95 33.59
113.35-C	17	0702	29°12.0'	115°39.0'	800	350° 5	clear	very rough	13.33a) 33.36
113.40-C	17	1045	29°02.0'	115°58.5'	400	350° 5	cloudy	very rough	14.76 33.39
113.45-C	17	1430	28°52.0'	116°18.0'	1175	350° 4	cloudy	high	15.10 33.39
113.50-C	17	1750	28°40.0'	116°36.0'	2200	350° 5	cloudy	high	15.18 33.40
113.55-C	17	2320	28°31.5'	116°56.5'	1950	340° 5	partly cloudy	rough	15.20 33.42
113.60-C	18	0108	28°22.0'	117°15.0'	2050	010° 4	partly cloudy	rough	15.32 33.42

a) Alternate value, 13.63°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
113.70-C	III-18	0530	28°02.0'	117°55.0'	1930	360°	3	clear	rough	16.03a) 33.54
117.26-C	20	0220	28°55.0'	114°40.0'	45	300°	3	clear	moderate	14.45 33.51
117.30-C	20	0025	28°48.0'	114°56.0'	54	280°	4	clear	moderate	14.14 33.36
117.35-C	19	2145	28°38.0'	115°15.5'	106	300°	4	partly cloudy	rough	14.82 33.52
117.40-C	19	1825	28°28.0'	115°35.5'	400	320°	3	cloudy	moderate	13.60b) 33.44
117.45-C	19	0045	28°18.0'	115°55.0'	1800	320°	2	partly cloudy	rough	14.96c) 33.34
117.50-C	18	2140	28°07.5'	116°16.0'	2250	320°	2	partly cloudy	rough	15.34 33.47
117.55-C	18	1835	27°58.0'	116°33.0'	2400	320°	3	cloudy	moderate	14.90 33.44
117.60-C	18	1550	27°48.0'	116°53.0'	1900	360°	4	cloudy	rough	14.79 33.38
117.70-C	18	1030	27°27.5'	117°33.0'	2000	360°	4	partly cloudy	rough	15.86 33.48
120.25-C	20	0710	28°23.5'	114°16.0'	35	330°	4	partly cloudy	moderate	14.42 33.55
120.30-C	20	0945	28°14.0'	114°35.0'	52	300°	3	clear	moderate	14.50 -
120.35-C	20	1227	28°03.0'	114°54.0'	45	340°	4	partly cloudy	moderate	14.74d) 33.49
120.40-C	20	1528	27°56.5'	115°20.0'	42	320°	4	cloudy	moderate	14.07e) 33.50
120.45-C	20	1750	27°44.0'	115°34.0'	1400	320°	3	partly cloudy	moderate	14.69 33.56

a) Alternate value, 16.20°C.

b) Alternate value, 13.08°C.

c) Alternate value, 14.82°C.

d) Alternate value, 14.33°C.

e) Alternate value, 14.31°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude		Longitude		Sounding (fm)	Wind		Weather	Sea	10 Meters	
			North	West	North	West		Dir	Force			T	S
120. 50-C	III-20	2030	27°32.5'	115°52.5'	27°32.5'	115°52.5'	2200	310°	4	overcast	rough	15.42	33.43
120. 55-H	21	0130	27°20.5'	116°08.0'	27°20.5'	116°08.0'	2025	310°	4	overcast	rough	14.74	33.38
120. 60-H	20	2300	27°11.5'	116°28.0'	27°11.5'	116°28.0'	2055	310°	4	cloudy	moderate	15.26	33.38
120. 70-H	20	1830	26°52.5'	117°10.0'	26°52.5'	117°10.0'	2025	320°	4	partly cloudy	rough	16.60	33.46
120. 80-H	20	1400	26°32.0'	117°53.5'	26°32.0'	117°53.5'	2100	310°	4	partly cloudy	rough	15.88	33.48
120. 90-H	20	0950	26°13.0'	118°30.5'	26°13.0'	118°30.5'	2250	320°	4	clear	rough	16.18	33.66
120. 100-H	20	0530	25°53.0'	119°06.5'	25°53.0'	119°06.5'	2300	320°	4	clear	moderate	16.44	33.61
123. 37-H	19	0300	27°24.0'	114°39.5'	27°24.0'	114°39.5'	40	290°	2	partly cloudy	slight	12.98	33.65
123. 40-H	19	0440	27°18.0'	114°51.5'	27°18.0'	114°51.5'	210	320°	3	missing	moderate	14.44	33.60
123. 45-H	19	0715	27°05.5'	115°14.0'	27°05.5'	115°14.0'	2300	330°	4	missing	moderate	14.62	33.48
123. 50-H	19	0950	26°54.0'	115°35.0'	26°54.0'	115°35.0'	1775	300°	4	missing	rough	14.98	33.52
123. 55-H	19	1155	26°43.0'	115°56.0'	26°43.0'	115°56.0'	2100	300°	4	missing	slight	14.98	33.40
123. 60-H	19	1420	26°34.5'	116°14.0'	26°34.5'	116°14.0'	2125	320°	4	partly cloudy	moderate	15.32	33.42
127. 34-H	18	2250	26°55.0'	114°07.0'	26°55.0'	114°07.0'	47	250°	2	partly cloudy	moderate	14.88	33.62
127. 40-H	18	2015	26°42.0'	114°30.0'	26°42.0'	114°30.0'	1600	320°	3	partly cloudy	moderate	15.06	33.51
127. 45-H	18	1730	26°32.0'	114°51.0'	26°32.0'	114°51.0'	1750	330°	3	partly cloudy	moderate	15.40	33.53
127. 50-H	18	1450	26°23.5'	115°10.0'	26°23.5'	115°10.0'	2115	310°	2	partly cloudy	rough	15.65	33.52
127. 55-H	18	1310	26°17.0'	115°20.5'	26°17.0'	115°20.5'	1800	330°	2	partly cloudy	rough	16.07	33.63
127. 60-H	18	1020	26°05.5'	115°40.0'	26°05.5'	115°40.0'	1950	320°	4	clear	rough	15.88	33.48

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
130. 30-H	III-17	1520	26°30.0'	113°27.5'	40	310° 4	cloudy	moderate	13.82 33.69
130. 35-H	17	1920	26°17.5'	113°44.5'	150	360° 4	cloudy	rough	15.40 33.58
130. 40-H	17	2150	26°10.5'	114°08.0'	1200	300° 6	cloudy	very rough	15.64 33.63
130. 50-H	18	0220	25°52.0'	114°47.0'	1980	300° 5	cloudy	very rough	15.76 33.56
130. 60-H	18	0620	25°31.5'	115°20.0'	2150	320° 5	clear	rough	16.78 33.72
133. 25-H	17	0950	25°59.0'	112°49.5'	45	310° 6	partly cloudy	very rough	14.72 33.79
133. 30-H	17	0740	25°50.0'	113°09.0'	500	290° 4	partly cloudy	rough	16.22 33.73
133. 40-H	17	0230	25°29.0'	113°50.0'	1200	320° 6	cloudy	rough	16.36 33.68
133. 50-H	16	2220	25°13.5'	114°26.0'	2060	330° 6	cloudy	rough	16.36 33.68
133. 60-H	16	1740	24°59.0'	115°05.5'	1800	320° 5	partly cloudy	rough	16.80 33.79
137. 23-H	15	1950	25°32.0'	112°19.0'	40	290° 4	partly cloudy	rough	16.78 33.84
137. 30-H	15	2300	25°20.5'	112°45.0'	1250	320° 5	cloudy	moderate	16.98 33.78
137. 40-H	15	0255	24°59.0'	113°26.0'	850	330° 5	clear	moderate	18.14 34.01
137. 50-H	16	0750	24°39.5'	114°03.5'	1050	300° 5	clear	rough	16.66 33.85
137. 60-H	16	1245	24°16.5'	114°40.0'	-	300° 5	missing	rough	16.92 33.78
140. 30-H	15	1500	24°45.5'	112°24.5'	60	320° 4	partly cloudy	moderate	16.92 33.84
140. 35-H	15	1210	24°32.5'	112°45.5'	750	290° 4	partly cloudy	moderate	17.20 33.91
140. 40-H	15	0940	24°25.5'	113°02.0'	1850	340° 4	partly cloudy	rough	17.90 33.98
140. 50-H	15	0445	24°05.0'	113°39.5'	185.5	320° 4	cloudy	moderate	18.89 34.16

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters	
										T	S
143. 26-H	III-14	1200	24°19.0'	111°47.0'	38	290°	3	clear	slight	14.58	34.04
143. 30-H	14	0430	24°11.0'	112°03.0'	128	320°	2	cloudy	rough	17.18	33.85
143. 35-H	14	1710	24°01.0'	112°21.0'	375	320°	4	partly cloudy	moderate	17.10	33.85
143. 40-H	14	1940	23°50.5'	112°41.0'	1400	320°	4	partly cloudy	rough	18.54	34.04
143. 50-H	15	0000	23°30.0'	113°18.0'	1590	290°	3	cloudy	moderate	19.16	34.19
147. 20-H	14	0700	23°56.5'	111°04.5'	80	300°	4	clear	moderate	16.11	33.89
147. 25-H	14	0400	23°46.0'	111°22.5'	180	290°	4	clear	moderate	17.96	33.92
147. 30-H	14	0150	23°38.5'	111°39.0'	195	340°	4	partly cloudy	very rough	18.08	33.96
147. 40-H	13	2050	23°16.5'	112°18.0'	1825	320°	5	partly cloudy	very rough	19.14	34.08
150. 19-H	13	0450	23°23.5'	110°39.0'	110	300°	5	clear	moderate	17.32	33.94
150. 25-H	13	0810	23°11.5'	110°59.0'	770	320°	4	clear	rough	18.48	33.96
150. 30-H	13	1110	23°02.0'	111°20.0'	1550	320°	6	partly cloudy	very rough	19.01	34.01
150. 40-H	13	1610	22°41.0'	112°00.0'	1850	320°	5	partly cloudy	rough	19.74	34.22
153. 16-H	12	2220	22°54.0'	110°04.0'	60	290°	3	clear	moderate	18.44	34.29
153. 30-H	12	1600	22°27.0'	110°59.0'	1700	320°	4	clear	moderate	19.42	34.05
153. 40-H	12	1045	22°03.5'	111°36.0'	1800	320°	4	clear	moderate	20.22	34.29
157. 10-H	11	1530	22°35.0'	109°18.0'	1650	040°	3	clear	slight	21.61	34.56
157. 20-H	11	2000	22°17.5'	109°57.0'	1750	320°	4	clear	moderate	19.13	34.03
157. 30-H	12	0050	21°56.0'	110°34.5'	1225	240°	3	clear	moderate	19.86	34.08
157. 40-H	12	0530	21°34.0'	111°15.0'	1800	270°	3	clear	moderate	19.82	34.16

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

80.51 CREST; April 7, 1955; 2350 GCT; 34°25.5'N, 120°32'W; sounding, 90 fm; wind, 300°, force 6; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	10.17	33.83	4.28	198	0	10.17	33.83	4.28	26.03	198	0.00
5	10.18	33.81	4.17	200	10	10.13	33.83	4.10	26.04	198	0.02
15	10.07	33.85	4.02	196	20	10.10	33.83	4.00	26.04	198	0.04
25	10.11	33.81	3.95	199	30	10.10	33.82	3.88	26.04	198	0.06
35	10.07	33.83	3.83	198	50	9.84	33.86	3.36	26.10	192	0.10
50	9.84	33.86	3.36	192	75	9.22	33.95	1.99	26.28	175	0.14
69	9.30	33.94	2.07	177	100	(9.15)	(33.97)	(1.80)	(26.31)	(172)	(0.19)
93	9.16	33.96	1.82	173							

80.55 CREST; April 8, 1955; 0302 GCT; 34°18'N, 120°46.5'W; sounding, 450 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

0	11.5	33.63	5.34	236	0	11.5	33.63	5.34	25.64	236	0.00
10	11.50	33.65	5.27	234	10	11.50	33.65	5.27	25.65	234	0.02
29	10.96	33.71	4.52	220	20	11.29	33.68	4.90	25.72	228	0.05
38	10.14	33.74	3.27	205	30	10.90	33.71	4.50	25.81	219	0.07
47	9.90	33.86	2.82	192	50	9.78	33.87	2.63	26.13	189	0.11
57	9.55	33.88	2.37	185	75	9.21	33.97	2.18	26.30	173	0.16
66	9.30	33.96	2.24	176	100	8.97	34.05	1.85	26.40	163	0.20
75	9.21	33.97	2.18	173	150	8.64	34.20	1.58	26.56	148	0.28
84	9.01	34.01	2.03	167	200	8.27	34.22	1.21	26.64	141	0.35
92	9.00	34.01	2.06	167	250	8.08	34.23	1.51	26.69	136	0.42
109	8.90	34.09	1.81	160	300	7.88	34.25	1.02	26.73	132	0.49
132	8.78	34.11	1.77	156	400	7.13	34.29	0.75	26.86	120	0.62
150	8.64	34.20	1.58	148	500	(6.10)	(34.32)		(27.02)	(104)	(0.74)
187	8.36	34.22	1.28	142							
225a)	8.19	34.23	1.14	140							
354	7.54	34.27	0.92	127							
469	6.43	34.31	0.51	109							

80.60 CREST; April 8, 1955; 0651 GCT; 34°09'N, 121°09'W; sounding, 1150 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	11.4	33.55	5.55	240	0	11.4	33.55	5.55	25.60	240	0.00
10	11.36	33.55	5.60	239	10	11.36	33.55	5.60	25.60	239	0.02
28	11.30	33.55	5.50	238	20	11.34	33.55	5.55	25.61	239	0.05
38	11.16	33.60	5.01	232	30	11.27	33.55	5.30	25.61	238	0.07
47	11.04	33.62	4.86	229	50	10.93	33.61	4.65	25.73	228	0.12
56	10.67	33.58	4.28	226	75	9.95	33.62	3.64	25.91	210	0.17
66	10.38	33.68	3.87	213	100	9.12	33.79	2.98	26.18	185	0.22
74	9.96	33.62	3.64	210	150	8.50	34.01	2.25	26.44	160	0.31
83	9.69	33.68	3.26	202	200	7.99	34.06	2.00	26.57	148	0.39
92	9.36	33.76	2.96	191	250	7.70	34.16	1.35	26.68	137	0.46
110	8.96	33.83	3.00	179	300	7.36	34.20	1.12	26.77	129	0.53
133	8.54	33.95	2.30	165	400	6.65	34.26	0.89	26.91	115	0.65
152	8.48	34.01	2.21	160	500	(6.18)	(34.31)		(27.01)	(106)	(0.77)
188	8.01	34.04	2.10	150							
263	7.60	34.18	1.26	134							
361	6.90	34.24	0.98	120							
477	6.26	34.30	0.47	108							

a) Alternate depth, 257 meters, rejected.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

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CREST; April 8, 1955; 1303 GCT; 33°47.5'N, 121°49.5'W; sounding, 1940 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 24°.

80.70

0	12.3	33.46	6.08	263	0	12.3	33.46	6.08	25.35	263	0.00
9	12.22	33.46	6.08	261	10	12.21	33.46	6.07	25.38	261	0.03
23	12.06	33.45	5.91	259	20	12.10	33.45	5.98	25.39	260	0.05
45	11.86	33.47	5.81	254	30	11.99	33.46	5.89	25.42	257	0.08
55	11.86	33.44	5.78	256	50	11.84	33.47	5.80	25.44	255	0.13
63	11.84	33.45	5.75	255	75	11.64	33.43	5.38	25.46	253	0.19
72	11.74	33.43	5.49	255	100	9.89	33.59	3.46	25.89	212	0.25
88	10.52	33.48	4.27	230	150	9.10	33.93	2.48	26.29	174	0.35
110	9.62	33.70	3.02	200	200	8.43	34.05	2.10	26.49	156	0.43
135	9.28	33.88a)	2.58	181	250	7.94	34.14	1.48	26.64	141	0.51
177	8.74	34.00	2.33	164	300	7.48	34.21	1.10	26.75	131	0.58
237	8.03	34.13	1.59	144	400	6.78	34.26	0.68	26.90	117	0.70
327	7.30	34.23	0.92	126	500	6.10	34.30	0.45	27.01	106	0.82
442	6.44	34.28	0.56	112	600	5.58	34.33	0.35	27.11	97	0.93
611	5.49	34.34	0.33	95	700	5.01	34.37	0.36	27.20	88	1.02
820	4.54	34.42	0.41	79	800	4.60	34.41	0.40	27.28	80	1.12
1112	3.66	34.52	0.65	63	1000	4.00	34.48	0.55	27.39	70	1.28

CREST; April 8, 1955; 1916, 1949 GCT; 33°26.5'N, 112°31'W; sounding, 2000+ fm; wind, 290°, force 5; weather, partly cloudy; sea, rough; wire angle, 20°, 30°.

80.80

0	12.7	33.28	5.25	283	0	12.7	33.28	5.25	25.14	283	0.00
10	12.47	33.28	6.07	279	10	12.47	33.28	6.07	25.18	279	0.03
24	12.29	33.33	6.04	272	20	12.35	33.31	6.05	25.23	275	0.06
47	12.13	33.29	6.10	272	30	12.22	33.31	6.04	25.26	272	0.08
58	12.15	33.29	6.07	272	50	12.12	33.29	6.08	25.26	272	0.14
67	12.17	33.30	6.17	272	75	12.15	33.30	6.13	25.26	272	0.20
77	12.15	33.30	6.13	272	100	9.88	33.25	4.96	25.63	237	0.27
95	10.28	33.22	5.26	246	150	8.55	33.82	3.15	26.29	174	0.37
118	9.12	33.46	4.18	209	200	8.00	34.00	2.53	26.52	152	0.46
146	8.60	33.79	3.25	177	250	7.56	34.10	2.08	26.65	140	0.53
190	8.08	33.98	2.62	156	300	7.18	34.12	1.53	26.72	133	0.60
252	7.53	34.10	2.07	139	400	6.65	34.29	0.65	26.93	113	0.73
349	6.96	34.23	0.96	122	500	6.15	34.35	0.45	27.04	103	0.84
					600	5.58	34.38	0.32	27.14	93	0.94
327	7.00	34.14	1.21	129	700	4.98	(34.41)	0.33	(27.24)	(84)	(1.04)
441	6.44	34.32	0.53	108	800	4.60	(34.45)	0.34	(27.30)	(78)	(1.13)
608	5.48	34.38	0.32	93	1000	4.01	(34.49)	0.50	(27.40)	(68)	(1.29)
811	4.56	34.60u	0.36	-							
1097	3.78	34.52	0.67	64							

CREST; April 9, 1955; 0225, 0254 GCT; 33°07'N, 123°09.5'W; sounding, 2350 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°, 20°.

80.90

0	12.9	33.24	5.97	290	0	12.9	33.24	5.97	25.07	290	0.00
11	13.00	33.18	6.07	296	10	13.00	33.18	6.05	25.01	296	0.03
25	12.86	33.19	6.04	292	20	12.90	33.18	6.06	25.03	294	0.06
50	12.37	33.21b)	6.13	282	30	12.78	33.20	6.06	25.06	291	0.09
60	12.24	33.22	5.93	280	50	12.37	33.21	6.13	25.15	282	0.14
68	11.93	33.19	5.94	276	75	11.67	33.20	5.87	25.27	271	0.21
77	11.60	33.20	5.84	269	100	10.79	33.19	5.40	25.43	256	0.28
97	10.92	33.18	5.52	259	150	8.93	33.68	3.17	26.12	190	0.39
120	9.81	33.36	4.26	228	200	8.20	33.94	2.33	26.44	160	0.48
147	9.00	33.65	3.26	194	250	7.41	(34.07)	1.82	(26.65)	(140)	(0.56)
192	8.34	33.91	2.48	165	300	6.92	(34.12)	1.44	(26.76)	(129)	(0.63)
					400	6.18	(34.18)	0.94	(26.91)	(115)	(0.76)
241	7.54	34.06	1.90	142	500	5.59	34.24	0.58	27.03	104	(0.87)
342	6.56	34.26c)	1.24	-	600	5.01	34.31	0.38	27.15	93	(0.98)
464	5.74	34.22	0.62	107							
645	4.85	34.34	0.32	89							

a) Mean value of 33.85 and 33.90‰.

b) Mean value of 33.18 and 33.24‰.

c) Loose bottle cap; value does not fall on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

83.40

CREST; April 10, 1955; 2025 GCT; 34°13.5'N, 119°21.5'W; sounding, 12 fm; wind, 280°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	13.41	33.58	7.14	275	0	13.41	33.58	7.14	25.23	275	0.00
5	12.86	33.59	6.98	263	10	12.02	33.66	5.84	25.57	243	0.03
10	12.02	33.66	5.84	243							

83.43

CREST; April 10, 1955; 1801 GCT; 34°06.5'N, 119°33.5'W; sounding, 130 fm; wind, 270°, force 5; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	12.62	33.60	6.36	258	0	12.62	33.60	6.36	25.40	258	0.00
10	12.55	33.58	6.32	258	10	12.55	33.58	6.32	25.40	258	0.03
15	12.16	33.62	5.99	248	20	11.60	33.66	5.40	25.65	235	0.05
20	11.60	33.66	5.40	235	30	11.08	33.64	4.62	25.72	228	0.07
25	11.14	33.65	4.76	228	50	10.29	33.77	3.55	25.97	205	0.12
30	11.08	33.64	4.62	228	75	9.25	33.88	2.50	26.23	180	0.16
35	10.95	33.71	4.40	220	100	9.09	33.98	2.07	26.33	170	0.21
45	10.43	33.77	3.76	208							
55	10.17	33.78	3.43	202							
64	9.72	33.86	2.91	189							
78	9.19	33.89	2.40	179							
97	9.11	33.96	2.09	173							
121	8.92	34.03	1.91	164							

83.51

CREST; April 10, 1955; 1155 GCT; 33°51.5'N, 120°08'W; sounding, 90 fm; wind, 320°, force 8; weather, cloudy; sea, rough; wire angle, 37°.

0	12.4	33.55	5.55	258	0	12.4	33.55	5.55	25.41	258	0.00
10	12.41	33.51	5.18	261	10	12.41	33.51	5.18	25.37	261	0.03
14	12.40	33.55	4.92	258	20	12.37	33.54	5.10	25.41	258	0.05
16	12.39	33.53	5.16	259	30	11.74	33.58	4.60	25.55	244	0.08
21	12.37	33.54	5.09	258	50	9.87	33.76	2.80	26.03	199	0.12
30	11.74	33.58	4.60	244	75	9.18	33.97	2.05	26.31	172	0.17
40	10.08	33.71	3.01	206							
49	9.92	33.76	2.84	200							
57	9.60	33.81	2.59	191							
70	9.22	33.97	2.10	174							
89	9.08	33.98	1.98	171							

83.60

CREST; April 10, 1955; 0525 GCT; 33°33.5'N, 120°44'W; sounding, 800 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 25°.

0	12.7	33.37	5.97	277	0	12.7	33.37	5.97	25.21	277	0.00
9	12.68	33.38	6.60	276	10	12.69	33.38	6.60	25.22	275	0.03
28	11.96	33.48	5.82	255	20	12.30	33.44	6.23	25.34	264	0.06
42	11.34	33.53	5.34	241	30	11.83	33.49	5.73	25.47	252	0.08
51	11.26	33.58	5.13	236	50	11.25	33.58	5.14	25.64	236	0.13
59	11.13	33.68	4.98	226	75	10.17	33.74	3.43	25.96	205	0.18
67	10.52	33.72	4.00	212	100	8.81	33.82	3.10	26.25	178	0.23
76	10.07	33.74	3.39	204	150	8.22	34.01	2.53	26.48	156	0.32
88	8.96	33.78	3.18	183	200	7.92	34.10	2.17	26.62	143	0.39
97	8.86	33.80	3.12	180	250	7.71	34.21	1.53	26.72	134	0.46
117	8.58	33.99	2.84	161	300	7.40	34.22	1.22	26.77	128	0.53
143	8.28	34.01	2.61	157	400	6.60	34.24	0.71	26.90	116	0.66
188	7.98	34.07	2.30	148	500	5.99	34.25	0.40	27.00	106	0.77
246	7.74	34.20	1.58	135	600	(5.47)	(34.30)	(0.32)	(27.09)	(98)	(0.88)
347	7.01	34.23	0.97	123							
466	6.16	34.26	0.47	109							
593	5.52	34.30	0.32	99							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{10}^{-5} T_{3g}$	Z	T	S	O ₂	σ_t	$\delta T_{10}^{-5} T_{3g}$	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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CREST; April 9, 1955; 2236 GCT; 33°13.5'N, 121°25.5'W; sounding, 2000+ fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 42°.

83.70

0	13.5	33.30	5.92	297	0	13.5	33.30	5.92	25.00	297	0.00
10	13.22	33.28	5.97	293	10	13.22	33.28	5.97	25.04	293	0.03
26	13.19	33.24	5.99	295	20	13.20	33.26	5.98	25.03	294	0.06
39	13.16	33.25	6.05	294	30	13.19	33.24	5.99	25.02	295	0.09
47	13.14	33.24	6.01	294	50	13.09	33.24	6.02	25.04	293	0.15
56	12.93	33.31	6.07	285	75	11.70	33.28	5.36	25.33	265	0.22
64	12.70	33.29	5.87	283	100	9.85	33.38	4.35	25.74	227	0.28
72	12.12	33.25	-	275	150	8.41	33.91	3.01	26.37	166	0.38
83	10.84	33.34	5.07	246	200	8.00	33.96	2.63	26.49	156	0.46
90	10.46	33.29	4.82	244	250	7.41	34.01	2.13	26.60	144	0.54
109	9.40	33.50	3.98	211	300	6.75	34.09	1.44	26.76	130	0.61
129	8.94	33.64	3.57	193	400	6.14	34.18	0.80	26.91	115	0.73
155	8.34	33.94	2.93	163	500	5.79	34.24	0.61	27.00	106	0.85
210	7.89	33.97	2.55	154							
295	6.80	34.08	1.50	131							
403	6.09	34.18	0.78	115							
526	5.67	34.25	0.60	105							

CREST; April 9, 1955; 1526 GCT; 32°54'N, 122°12.5'W; sounding, 2200 fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 25°.

83.80

0	13.7	33.29	5.91	301	0	13.7	33.29	5.91	24.95	301	0.00
10	13.64	33.27	5.95	302	10	13.64	33.27	5.95	24.95	302	0.03
28	13.64	33.22	5.87	305	20	13.64	33.25	5.90	24.93	304	0.06
41	13.42	33.23	5.94	301	30	13.61	33.22	5.88	24.91	305	0.09
50	13.38	33.23	5.91	299	50	13.38	33.23	5.91	24.97	299	0.15
59	13.38	33.20	5.94	302	75	12.66	33.29	5.56	25.16	282	0.22
67	13.38	33.23	5.88	299	100	9.89	33.40	4.13	25.74	226	0.29
75	12.66	33.29	5.56	282	150	8.50	33.82	2.99	26.30	173	0.39
87	11.09	33.25	5.09	257	200	7.79	33.98	2.53	26.53	151	0.47
95	10.20	33.34	4.43	235	250	7.41	34.07	1.95	26.65	140	0.54
116	9.33	33.55	3.62	206	300	6.83	34.10	1.40	26.76	130	0.62
141	8.71	33.78	3.12	180	400	5.92	34.17	0.66	26.93	113	0.74
188	7.92	33.94	2.68	157	500	5.41	34.28	0.40	27.08	100	0.85
244	7.45	34.06	2.05	141	600	(5.23)	(34.40)	(0.34)	(27.20)	(88)	(0.95)
347	6.28	34.13	1.01	121							
466	5.56	34.23	0.54	104							
596	5.24	34.37	0.34	91							

CREST; April 9, 1955; 0838, 0857 GCT; 32°36'N, 122°47.5'W; sounding, 2400 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 10°, 10°.

83.90

0	13.2	33.22	5.97	297	0	13.2	33.22	5.97	25.00	297	0.00
10	13.35	33.25	5.98	297	10	13.35	33.25	5.98	24.99	297	0.03
					20	13.37	33.23	5.88	24.97	300	0.06
19	13.39	33.23	5.88	300	30	13.18	33.22	5.86	25.01	296	0.09
29	13.18	33.22	5.88	296	50	13.05	33.28	5.82	25.07	290	0.15
37	13.07	33.29	5.85	290	75	12.24	33.22	5.65	25.19	279	0.22
47	13.06	33.28	5.90	290	100	10.45	33.22	5.07	25.51	248	0.29
57	13.04	33.27	5.75	290	150	8.80	33.64	3.74	26.11	191	0.40
67	13.01	33.24	5.79	292	200	8.10	33.89	3.16	26.41	162	0.49
77	11.97	33.22	5.59	274	250	7.39	33.96	2.79	26.57	148	0.57
86	11.12	33.20	5.35	261	300	6.73	34.02	1.97	26.71	134	0.64
110	10.01	33.26	4.79	238	400	5.90	34.12	0.90	26.90	117	0.77
138	8.99	33.53	3.92	202	500	5.33	34.23	0.53	27.05	102	0.88
187	8.28	33.86	3.29	168	600	(4.89)	(34.37)	(0.41)	(27.22)	(86)	(0.98)
243	7.44	33.95	2.84	149							
346	6.25	34.07	1.08	125							
463	5.49	34.19	0.60	107							
587	4.96	34.35	0.41	89							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	dyn. m

87.35 CREST; April 11, 1955; 0204 GCT; 33°50.5'N, 118°37.5'W; sounding, 257 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	14.17	33.43	6.12	300	0	14.17	33.43	6.12	24.96	300	0.00
11	12.77	33.48	5.65	269	10	12.81	33.48	5.69	25.28	270	0.03
16	12.54	33.48	5.47	266	20	12.00	33.48	4.89	25.43	256	0.06
20	12.00	33.48	4.89	256	30	11.47	33.49	4.66	25.53	246	0.08
25	11.82	33.55	4.84	247	50	10.14	33.63	3.27	25.89	212	0.13
30	11.47	33.49	4.66	246	75	9.74	33.79	2.88	26.08	194	0.18
35	10.72	33.53	3.91	230	100	9.40	33.90	2.69	26.22	181	0.22
45	10.19	33.63	3.33	214	150	8.78	34.14	2.05	26.50	154	0.31
55	10.12	33.64	3.23	212							
64	9.96	33.69	3.13	205							
79	9.67	33.81	2.78	192							
98	9.42	33.89	2.70	182							
117	9.20	34.01	2.50	170							
151	8.77	34.14	2.03	154							

87.40 CREST; April 11, 1955; 0604 GCT; 33°39.5'N, 118°58'W; sounding, 450 fm; wind, 320°, force 7; weather, clear; sea, rough; wire angle, 15°.

0	14.1	33.51	6.17	293	0	14.1	33.51	6.17	25.04	293	0.00
10	14.00	33.48	6.18	294	10	14.00	33.48	6.18	25.03	294	0.03
29	11.81	33.59	5.14	244	20	12.38	33.55	5.51	25.41	258	0.06
44	9.87	33.70	3.22	203	30	11.73	33.59	5.09	25.55	244	0.08
54	9.72	33.77	2.88	196	50	9.78	33.75	3.02	26.04	198	0.13
64	9.65	33.78	2.83	194	75	9.50	33.83	2.64	26.15	188	0.17
74	9.51	33.83	2.67	188	100	9.08	34.06	2.23	26.39	164	0.22
83	9.42	33.90	2.60	182	150	8.85	34.27	1.75	26.60	145	0.30
97	9.10	34.05	2.25	165	200	8.60	34.34	1.35	26.68	137	0.37
107	9.06	34.30u	2.26u	-	250	8.19	34.36	1.01	26.76	129	0.44
132	8.90	34.23	1.91	149	300	7.60	34.35	0.73	26.84	122	0.50
160	8.81	34.29	1.73	144	400	6.69	34.31	0.49	26.94	112	0.62
211	8.53	34.35	1.28	135	500	6.12	34.33	0.37	27.03	104	0.73
272	7.95	34.36	0.86	125	600	5.62	34.37	0.20	27.12	95	0.84
380	6.82	34.31	0.53	114							
505	6.08	34.33	0.36	103							
627	5.47	34.38	0.17	93							

87.50 CREST; April 11, 1955; 1219 GCT; 33°20'N, 119°40'W; sounding, 43 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 00°.

0	12.60	33.59	5.64	259	0	12.60	33.59	5.64	25.40	259	0.00
5	12.59	33.55	5.66	261	10	12.56	33.55	5.60	25.37	261	0.03
10	12.56	33.55	5.60	261	20	11.71	33.63	4.82	25.60	239	0.05
15	12.30	33.59	5.35	253	30	10.30	33.69	3.53	25.90	211	0.07
20	11.71	33.63	4.82	239	50	9.46	33.83	2.98	26.15	188	0.11
25	11.16	33.63	3.55	230							
30	10.30	33.69	3.53	211							
40	9.69	33.84	2.98	191							
50	9.46	33.83	2.98	188							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O ₂ ml/L	δT_3 10 ⁻⁵ cm/g	Z m	T °C	S ‰	O ₂ ml/L	σ_t g/L	δT_3 10 ⁻⁵ cm/g	ΔD dyn. m

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CREST; April 12, 1955; 2311 GCT; 33°02.5'N, 120°18.5'W; sounding, 395 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 25°.

87.60

0	12.2	33.60	5.75	250	0	12.2	33.60	5.75	25.49	250	0.00
10	11.96	33.57	5.78	248	10	11.96	33.57	5.78	25.51	248	0.02
29	11.75	33.55	5.68	246	20	11.81	33.55	5.71	25.52	247	0.05
39	11.71	33.58	5.63	243	30	11.74	33.55	5.65	25.54	246	0.07
48	11.66	33.55	5.56	244	50	11.62	33.55	5.53	25.56	244	0.12
58	11.47	33.55	5.26	241	75	10.80	33.56	4.42	25.71	229	0.18
66	11.01	33.56	4.61	233	100	9.51	33.73	2.93	26.06	196	0.24
75	10.80	33.56	4.42	229	150	8.76	33.99	2.26	26.39	164	0.33
85	10.16	33.65	3.68	212	200	8.28	34.15	1.62	26.59	146	0.40
94	9.67	33.69	2.97	201	250	7.86	34.17	1.26	26.67	138	0.48
115	9.18	33.83	2.82	183	300	7.32	34.18	0.99	26.75	130	0.55
142	8.83	33.96	2.45	168	400	6.56	34.26	0.66	26.93	114	0.67
186	8.40	34.14	1.76	148	500	6.04	34.31	0.47	27.02	105	0.79
240	7.99	34.17	1.31	140							
334	6.93	34.19	0.82	124							
447	6.33	34.29	0.54	109							
568	5.77	34.32	0.41	100							

CREST; April 13, 1955; 0521, 0553 GCT; 32°40'N, 121°00'W; sounding, 2000+ fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 25°.

87.70

0	12.5	33.40	5.92	271	0	12.5	33.40	5.92	25.27	271	0.00
9	12.50	33.42	6.06	270	10	12.50	33.41	6.07	25.28	270	0.03
28	12.45	33.35	6.10	274	20	12.49	33.39	6.09	25.26	272	0.05
41	12.30	33.34	6.00	271	30	12.42	33.35	6.09	25.25	273	0.08
50	12.30	33.36	5.90	270	50	12.30	33.36	5.90	25.28	270	0.14
59	12.29	33.30	5.92	274	75	12.19	33.30	5.93	25.26	272	0.20
68	12.26	33.30	6.02	274	100	10.17	33.24	4.73	25.57	242	0.27
79	12.12	33.30	5.84	271	150	8.59	33.74	3.25	26.22	181	0.37
92	10.60	33.22	5.09	251	200	7.96	33.91	2.78	26.45	159	0.46
101	10.08	33.24	4.68	241	250	7.36	34.07		26.66	139	0.54
124	8.98	33.54	3.58	201	300	6.90	34.11		26.75	130	0.60
151	8.58	33.74	3.22	180	400	6.20	34.16		26.89	118	0.73
201	7.96	33.92	2.76	158	500	(5.46)	(34.23)		(27.03)	(104)	(0.85)
348	6.54	-	-	-							
260	7.22	34.08	-	137							
366	6.43	34.14	-	122							
487	5.58	34.22	-	105							

CREST; April 13, 1955; 1125 GCT; 32°19.5'N, 121°42'W; sounding, 2000+ fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 27°.

87.80

0	13.6	33.21	5.91	305	0	13.6	33.21	5.91	24.91	305	0.00
9	13.64	33.27	5.93	302	10	13.63	33.26	5.93	24.94	302	0.03
27	13.62	33.21	5.83	306	20	13.63	33.24	5.82	24.93	303	0.06
41	13.63	33.18	5.79	308	30	13.62	33.20	5.80	24.90	306	0.09
48	13.62	33.19	5.64	307	50	13.62	33.19	5.70	24.89	307	0.15
58	13.62	33.19	5.80	307	75	13.08	33.39	5.58	25.16	282	0.23
66	13.56	33.22	5.68	304	100	9.78	33.46	4.02	25.81	220	0.29
74	13.28	33.38	5.62	287	150	8.62	33.79	2.90	26.25	178	0.39
88	10.48	33.41	4.48	235	200	7.88	33.99	2.15	26.52	152	0.47
97	9.93	33.45	4.16	222	250	7.21	33.96	2.18	26.59	145	0.55
119	9.20	33.63	3.25	198	300	6.70	34.01	1.63	26.70	135	0.62
145	8.71	33.77	2.95	180	400	5.98	34.09	0.73	26.87	119	0.75
193	8.00	33.99	2.15	154	500	5.30	34.15	0.40	26.99	107	0.87
251	7.20	33.96	2.17	145	600	4.95	34.24	0.33	27.11	96	0.98
358	-	34.07	1.06	-							
478	5.41	34.14	0.45	110							
609	4.92	34.25	0.33	96							

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5504

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

8790

CREST; April 13, 1955; 1655 GCT; 32°00'N, 122°23'W; sounding, 2000+ fm; wind, 350°, force 5; weather, partly cloudy; sea, rough; wire angle, 32°.

0	13.8	33.37	6.01	297	0	13.8	33.37	6.01	24.99	297	0.00
10	13.48	33.38	6.04	290	10	13.48	33.38	6.04	25.07	290	0.03
28	13.47	33.33	5.97	294	20	13.48	33.35	6.00	25.05	292	0.06
41	13.46	33.35	6.04	292	30	13.47	33.33	6.00	25.03	294	0.09
51	13.37	33.36	5.94	290	50	13.37	33.36	5.95	25.07	290	0.15
60	12.83	33.30	5.96	284	75	11.34	33.28	5.62	25.40	259	0.22
69	11.76	33.29	5.76	265	100	10.04	33.34	4.88	25.67	233	0.28
78	11.12	33.28	5.55	255	150	8.70	33.74	3.54	26.20	183	0.38
91	10.35	33.30	5.23	240	200	7.80	33.92	3.46	26.48	156	0.47
100	10.04	33.34	4.88	233	250	7.38	34.01	2.40	26.61	143	0.54
123	9.48	33.50	4.42	212	300	6.79	34.03	1.81	26.71	134	0.62
150	8.70	33.74	3.54	183	400	5.86	34.07	1.26	26.86	120	0.75
200	7.80	33.92	3.46	156	500	5.39	34.18	0.41	27.01	106	0.87
259	7.25	34.02	2.20	141	600	4.91	34.24	0.32	27.11	96	0.97
364	6.05	34.05	1.43	124							
487	5.42	34.17	0.45	108							
619	4.82	34.25	0.31	96							

9028

CREST; April 15, 1955; 2008 GCT; 33°28'N, 117°44.5'W; sounding, 25 fm; wind, 290°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	14.94	33.45	7.01	314	0	14.94	33.45	7.01	24.82	314	0.00
10	13.43	33.49	6.84	282	10	13.43	33.49	6.84	25.16	282	0.03
15	13.04	33.49	6.94	274	20	12.63	33.51	6.79	25.33	265	0.06
20	12.63	33.51	6.79	265							
25	12.30	33.48	5.38	261							
29	11.78	33.50	4.65	250							

9030

CREST; April 15, 1955; 1817 GCT; 33°24'N, 117°54.5'W; sounding, 340 fm; wind, 310°, force 2; weather, cloudy; sea, moderate; wire angle, 10°.

0	15.6	33.40	6.06	332	0	15.6	33.40	6.06	24.63	332	0.00
10	14.98	33.40	5.98	319	10	14.98	33.40	5.98	24.77	319	0.03
31	13.49	33.38	6.08	291	20	14.39	33.39	6.01	24.88	308	0.06
41	11.58	33.39	4.78	255	30	13.62	33.38	6.08	25.04	293	0.09
50	10.88	33.38	4.14	244	50	10.88	33.38	4.14	25.56	244	0.15
60	10.23	33.50	3.72	224	75	9.80	33.66	3.33	25.95	206	0.20
69	9.84	33.65	3.37	207	100	9.40	33.87	2.69	26.18	184	0.25
79	9.80	33.66	3.31	206	150	8.99	34.03	2.26	26.39	165	0.34
89	9.52	33.83	2.91	188	200	8.62	34.16	1.76	26.54	150	0.42
98	9.42	33.86	2.74	184	250	8.43	34.28	1.09	26.67	138	0.49
117	9.24	33.94	2.57	176	300	8.09	34.30	0.79	26.73	132	0.56
142	9.01	34.02	2.31	166	400	7.13	34.30	0.54	26.87	119	0.69
161	8.87	34.05	2.13	162	500	(6.23)	(34.42)	(0.39)	(27.08)	(98)	(0.81)
199	8.62	34.16	1.77	150							
275	8.29	34.30	0.94	135							
378	7.34	34.29	0.58	122							
496	6.26	34.41	0.39	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T}{cm/g}$	dyn. m

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CREST; April 15, 1955; 0732 GCT; 33°10.5'N, 118.23'W; sounding, 650 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 06°.

90.37

0	14.7	33.44	6.08	310	0	14.7	33.44	6.08	24.86	310	0.00
10	14.72	33.44	6.07	310	10	14.72	33.44	6.07	24.86	310	0.03
31	11.34	33.40	4.28	250	20	13.40	33.42	5.42	25.10	286	0.06
46	10.68	33.45	3.70	235	30	11.40	33.40	4.34	25.48	251	0.09
57	10.26	33.58	3.52	219	50	10.56	33.49	3.64	25.70	230	0.14
65	9.92	33.64	3.29	209	75	9.72	33.70	3.11	26.00	201	0.19
75	9.72	33.70	3.11	201	100	9.08	33.90	2.69	26.27	176	0.24
86	9.66	33.74	3.07	197	150	9.29	34.24	1.69	26.50	154	0.32
99	9.05	33.88	2.88	177	200	9.07	34.24	1.39	26.53	151	0.40
110	9.36	34.00	2.30	173	250	8.60	34.23	1.17	26.60	144	0.47
134	9.30	34.15	1.84	161	300	(8.07)	34.27	0.88	(26.73)	(132)	(0.54)
163	9.27	34.27	1.55	152	400	(6.82)	34.34	0.40	(26.95)	(112)	(0.67)
217	8.95	34.22	1.32	150	500	(6.07)	34.34	0.36	(26.05)	(102)	(0.78)
281	8.26	34.27	0.99	137	600	5.58	34.35	0.33	27.11	96	(0.89)
394	-	34.34	0.42	-	700	(5.19)	(34.37)		(27.18)	(90)	(0.99)
522	5.96	34.34	0.36	101							
687	5.21	34.37	0.29	90							

CREST; April 15, 1955; 0235 GCT; 32°54.5'N, 118°56'W; sounding, 950 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

90.45

0	14.7	33.46	6.07	309	0	14.7	33.46	6.07	24.87	309	0.00
10	14.66	33.42	6.24	311	10	14.66	33.42	6.24	24.85	311	0.03
29	12.77	33.42	5.24	274	20	14.19	33.42	6.04	24.95	301	0.06
45	10.97	33.49	4.32	236	30	12.66	33.42	5.19	25.26	272	0.09
55	10.60	33.54	4.03	227	50	10.79	33.52	4.17	25.69	232	0.14
64	9.83	33.59	3.57	211	75	9.78	33.63	3.27	25.95	207	0.20
74	9.78	33.63	3.32	207	100	9.34	33.84	2.87	26.18	184	0.24
84	9.73	33.75	3.20	197	150	8.84	34.00	2.43	26.38	165	0.33
99	9.34	33.84	2.91	184	200	8.72	34.20	1.65	26.56	148	0.41
108	9.38	33.89	2.69	181	250	8.40	34.30	1.06	26.68	137	0.49
132	9.08	33.94	2.56	173	300	8.00	34.32	0.83	26.76	129	0.55
160	8.75	34.05	2.31	160	400	7.19	34.34	0.62	26.90	117	0.68
211	8.68	34.24	1.41	145	500	6.21	34.36	0.39	27.04	102	0.80
270	8.22	34.31	0.97	133	600	5.71	34.38	0.29	27.12	95	0.90
382	7.32	34.33	0.65	119							
507	6.19	34.37	0.39	101							
640	5.53	34.38	0.27	93							

CREST; April 14, 1955; 2306 GCT; 32°42.5'N, 119°15'W; sounding, 200 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 15°.

90.50

0	13.74	33.47	6.21	289	0	13.74	33.47	6.21	25.08	289	0.00
10	13.72	33.43	6.26	291	10	13.72	33.43	6.26	25.06	291	0.03
15	13.66	33.42	6.22	291	20	13.55	33.43	6.21	25.09	288	0.06
20	13.55	33.43	6.21	288	30	13.25	33.40	5.82	25.12	285	0.09
24	13.38	33.42	6.05	286	50	10.99	33.47	4.30	25.61	239	0.14
29	13.28	33.40	5.86	285	75	9.83	33.62	3.50	25.92	209	0.20
35	13.14	33.40	5.71	282							
44	12.06	33.40	5.10	263							
53	10.64	33.50	4.08	231							
63	10.32	33.50	3.91	225							
78	9.74	33.65	3.39	205							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

90.60

CREST; April 14, 1955; 1700 GCT; 32°25'N, 119°54'W; sounding, 1000 fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 33°.

0	13.2	33.39	6.02	284	0	13.2	33.39	6.02	25.13	284	0.00
9	13.08	33.37	6.08	284	10	13.08	33.37	6.07	25.13	284	0.03
26	13.07	33.36	6.07	284	20	13.07	33.36	6.07	25.13	284	0.06
40	12.15	33.31	5.80	271	30	13.00	33.35	6.06	25.14	284	0.08
48	11.53	33.42	5.41	251	50	11.39	33.40	5.32	25.49	250	0.14
56	10.44	33.28	4.93	244	75	9.68	33.34	4.46	25.73	227	0.20
65	9.96	33.28	4.65	236	100	9.29	33.67	3.18	26.06	196	0.25
74	9.72	33.34	4.49	228	150	8.56	33.99	2.43	26.42	162	0.34
87	9.35	33.52	3.76	209	200	7.99	34.10	1.87	26.59	145	0.42
95	9.34	33.62	3.37	201	250	7.43	34.18	1.44	26.73	132	0.49
116	9.00	33.86	2.78	178	300	7.12	34.25	0.99	26.84	122	0.56
141	8.64	33.96	2.53	165	400	6.59	34.31	0.59	26.96	111	0.68
184	8.16	34.07	2.03	150	500	6.00	34.34	0.40	27.06	101	0.79
236	7.57	34.16	1.54	135							
332	6.97	34.27	0.80	119							
445	6.30	34.32	0.49	107							
572	5.58	34.38	0.31	93							

90.80

CREST; April 14, 1955; 0450 GCT; 31°48'N, 121°19'W; sounding, 2000+ fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 20°.

0	14.0	33.33	5.98	304	0	14.0	33.33	5.98	24.92	304	0.00
10	13.88	33.40	6.10	297	10	13.88	33.40	6.10	25.00	297	0.03
23	13.88	33.30	6.04	304	20	13.88	33.35	6.05	24.94	303	0.06
52	13.83	33.35	6.04	300	30	13.87	33.31	6.04	24.94	303	0.09
61	13.79	33.40	5.95	295	50	13.85	33.35	6.04	24.97	300	0.15
70	13.01	33.37	5.97	282	75	12.92	33.37	5.91	25.17	281	0.22
83	12.78	33.37	5.74	278	100	11.40	33.34	4.90	25.43	256	0.29
101	11.36	33.34	4.89	254	150	9.15	33.67	3.07	26.08	194	0.40
124	9.97	33.45	3.99	223	200	8.30	33.93	2.58	26.41	163	0.50
151	9.12	33.68	3.03	193	250	7.60	33.96	2.54	26.54	150	0.58
200	8.30	33.93	2.58	162	300	7.01	33.99	2.34	26.64	140	0.65
271	7.38	33.97	2.52	147	400	6.02	34.06	1.02	26.83	123	0.79
371	6.26	34.04	1.27	127	500	5.35	34.11	0.57	26.96	110	0.91
501	5.34	34.12	0.57	110	600	5.07	34.20	0.42	27.06	101	1.02
678	4.88	34.26	0.34	95	700	4.80	34.27	0.34	27.14	94	1.12
901	4.22	34.33	0.48	83	800	4.54	34.30	0.37	27.19	88	1.22
1201	3.40	34.52	0.84	61	1000	3.95	34.38	0.60	27.32	76	1.40

90.90

CREST; April 13, 1955; 2216 GCT; 31°25'N, 121°58.5'W; sounding, 2000+ fm; wind, 310°, force 6; weather, cloudy; sea, very rough; wire angle, 33°.

0	14.1	33.32	5.90	307	0	14.1	33.32	5.90	24.89	307	0.00
10	13.91	33.31	5.75	304	10	13.91	33.31	5.75	24.92	304	0.03
22	13.85	33.31	5.78	303	20	13.86	33.31	5.76	24.93	303	0.06
48	13.70	33.24	5.92	305	30	13.80	33.29	5.80	24.93	304	0.09
57	13.16	33.31	5.82	289	50	13.65	33.24	5.92	24.92	304	0.15
67	12.35	33.33	6.01	273	75	11.95	33.35	5.78	25.34	264	0.22
78	11.78	33.35	5.63	261	100	10.29	33.35	4.93	25.63	236	0.29
96	10.48	33.34	5.00	240	150	8.64	33.79	3.10	26.25	178	0.39
118	9.49	33.41	4.50	219	200	8.20	33.93	2.54	26.43	161	0.48
144	8.90	33.68	3.48	190	250	7.46	33.98	2.30	26.58	147	0.56
191	8.30	33.92	2.59	163	300	6.80	34.02	1.86	26.69	136	0.63
259	7.32	33.99	2.22	144	400	6.00	34.12	1.02	26.88	118	0.76
354	6.14	34.08	1.17	122	500	5.58	34.26	0.40	27.05	102	0.88
480	5.62	34.24	0.48	104	600	5.19	34.32	0.28	27.14	93	0.98
653	4.93	34.34	0.26	89	700	4.78	34.35	0.29	27.21	86	1.08
870	4.16	34.37	0.51	79	800	4.40	34.36	0.40	27.26	82	1.17
1168	3.42	34.42	0.84	68	1000	3.80	34.39	0.69	27.35	74	1.34

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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CREST; April 16, 1955; 0051 GCT; 32°55'N, 117°19'W; sounding, 51 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

93.27

0	15.32	33.48	7.22	320	0	15.32	33.48	7.22	24.75	320	0.00
10	12.48	33.43	6.44	268	10	12.48	33.43	6.44	25.30	268	0.03
15	11.63	33.45	4.62	251	20	10.80	33.45	3.75	25.63	237	0.06
20	10.80	33.45	3.75	237	30	10.38	33.57	3.36	25.79	221	0.08
25	10.69	33.51	3.62	231	50	9.68	33.73	2.92	26.04	198	0.12
30	10.38	33.57	3.36	221							
35	10.14	33.66	3.16	211							
40	9.83	33.64	3.04	208							
50	9.68	33.73	2.92	198							

CREST; April 16, 1955; 0358 GCT; 32°48.5'N, 117°31'W; sounding, 410 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 12°.

93.30

0	15.5	33.44	5.95	327	0	15.5	33.44	5.95	24.68	327	0.00
10	14.92	33.43	6.21	316	10	14.92	33.43	6.21	24.80	316	0.03
29	11.79	33.44	4.46	255	20	13.27	33.43	5.50	25.15	282	0.06
39	10.79	33.52	3.68	231	30	11.66	33.44	4.36	25.47	252	0.09
48	10.32	33.62	3.32	217	50	10.25	33.63	3.25	25.86	215	0.14
59	10.00	33.64	2.97	210	75	9.75	33.78	2.81	26.06	196	0.19
68	9.80	33.75	2.85	199	100	9.39	33.92	2.54	26.23	179	0.24
77	9.73	33.78	2.80	195	150	8.90	34.10	2.00	26.46	158	0.32
86	9.53	33.84	2.62	187	200	8.61	34.21	1.57	26.58	147	0.40
96	9.42	33.91	2.59	181	250	8.25	34.26	1.19	26.67	138	0.47
114	9.20	33.96	2.47	174	300	7.92	34.29	0.89	26.75	130	0.54
139	8.97	34.07	2.13	162	400	7.19	34.33	0.51	26.89	117	0.67
158	8.86	34.11	1.92	157	500	(6.42)	(34.34)	(0.42)	(27.00)	(107)	(0.78)
196	8.66	34.20	1.62	148							
271	8.13	34.27	1.07	135							
375	7.36	34.32	0.58	120							
493	6.48	34.34	0.43	108							

CREST; April 16, 1955; 0930 GCT; 32°29.5'N, 118°11'W; sounding, 950 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 12°.

93.40

1	15.5	33.45	5.70	326	0	15.5	33.45	5.70	24.69	326	0.00
11	15.48	33.44	5.77	327	10	15.48	33.44	5.74	24.68	327	0.03
30	12.04	33.37	5.35	265	20	15.42	33.43	5.75	24.69	326	0.06
40	11.28	33.40	4.75	249	30	12.04	33.37	5.35	25.33	265	0.10
50	10.46	33.49	3.82	229	50	10.46	33.49	3.82	25.71	229	0.14
60	9.96	33.55	3.54	216	75	9.52	33.63	3.30	25.98	203	0.20
70	9.60	33.60	3.39	206	100	9.06	33.82	2.85	26.20	182	0.25
79	9.45	33.66	3.17	200	150	8.59	34.02	2.30	26.44	160	0.33
89	9.21	33.71	3.01	192	200	8.11	34.13	1.80	26.60	144	0.41
99	9.08	33.82	2.84	182	250	7.69	34.18	1.34	26.70	135	0.48
125	8.78	33.88	2.89	173	300	7.39	34.23	0.99	26.79	127	0.55
154	8.58	34.03	2.20	159	400	6.70	34.32	0.49	26.95	112	0.67
203	8.05	34.14	1.67	143	500	6.08	34.34	0.35	27.05	102	0.78
260	7.61	34.19	1.28	134	600	5.55	34.35	0.28	27.12	95	0.89
363	6.98	34.30	0.58	116							
481	6.18	34.34	0.35	104							
605	5.52	34.35	0.27	95							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{cm/g}$	dyn. m

93.50

CREST; April 16, 1955; 1457, 1542 GCT; 32°12'N, 118°52.5'W; sounding, 750 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 13°, 22°.

0	14.6	33.41	5.77	311	0	14.6	33.41	5.77	24.85	311	0.00
10	14.67	33.42	5.92	311	10	14.67	33.42	5.92	24.85	311	0.03
30	14.15	33.43	5.75	300	20	14.67	33.43	5.95	24.86	310	0.06
45	11.48	33.46a)	5.15	248	30	14.15	33.43	5.75	24.97	300	0.09
55	10.37	33.48	3.69	228	50	10.86	33.46	4.36	25.62	238	0.15
65	9.97	33.59	3.46	213	75	9.60	33.66	3.34	26.00	202	0.20
75	9.60	33.66	3.34	202	100	9.00	33.82	2.96	26.22	181	0.25
84	9.44	33.78b)	3.07	191	150	8.78	34.10	2.05	26.48	156	0.34
99	9.00	33.82	2.97	181	200	8.60	34.23	1.44	26.60	144	0.41
109	8.93	33.88	2.87	175	250	8.10	34.29	1.04	26.72	133	0.48
133	8.74	34.01	2.45	163	300	7.51	34.30	0.97	26.82	124	0.55
161	8.78	34.14	1.96	154	400	6.79	34.35	0.61	26.96	111	0.67
240	8.22	34.28	1.06	136	500	6.12	34.42	0.41	27.10	97	0.78
276	7.76	34.29	1.02	128	600	5.70	34.42	0.30	27.16	92	0.88
389	6.82	34.34	0.62	112							
516	6.05	34.42	0.37	96							
650	5.52	34.42	0.28	90							

93.60

CREST; April 16, 1955; 2113 GCT; 31°53'N, 119°35'W; sounding, 1350 fm; wind, 350°, force 4; weather, overcast; sea, rough; wire angle, 15°.

0	13.9	33.44	6.00	294	0	13.9	33.44	6.00	25.03	294	0.00
10	13.88	33.44	6.03	294	10	13.88	33.44	6.03	25.03	294	0.03
31	13.52	33.41	6.04	289	20	13.72	33.43	6.03	25.05	292	0.06
44	13.33	33.48	6.00	280	30	13.53	33.41	6.04	25.08	289	0.09
55	13.22	33.46	5.93	280	50	13.29	33.47	5.96	25.17	280	0.14
63	12.47	33.41	5.68	270	75	11.50	33.35	5.29	25.42	257	0.21
73	11.68	33.34	5.40	260	100	10.40	33.52	4.61	25.75	225	0.27
82	11.06	33.42	4.85	244	150	8.79	33.80	3.00	26.23	179	0.37
93	10.91	33.48	4.75	237	200	8.43	34.07	2.16	26.50	154	0.46
106	9.80	33.54	3.76	214	250	8.20	34.17	1.41	26.61	143	0.54
130	9.02	33.68	3.39	192	300	7.83	34.20	0.98	26.70	136	0.61
159	8.70	33.86	2.88	174	400	6.92	34.24	0.54	26.85	120	0.74
210	8.40	34.11	2.00	151	500	6.18	34.35	0.36	27.04	102	0.86
271	8.06	34.19	1.17	140	600	5.54	34.36	0.30	27.13	94	0.96
379	7.08	34.23	0.59	124							
507	6.14	34.36	0.34	101							
640	5.28	34.36	0.30	92							

93.70

CREST; April 17, 1955; 0235 GCT; 31°35'N, 120°08'W; sounding, 2150 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 11°.

0	14.2	33.40	5.86	303	0	14.2	33.40	5.86	24.94	303	0.00
10	14.19	33.47	5.86	298	10	14.19	33.47	5.86	24.99	298	0.03
30	13.68	33.40	5.95	293	20	13.94	33.43	5.92	25.01	296	0.06
45	13.46	33.40	5.89	289	30	13.68	33.40	5.95	25.04	293	0.09
55	13.40	33.44	5.84	284	50	13.43	33.43	5.87	25.11	286	0.15
65	13.16	33.40	5.74	283	75	12.40	33.35	5.61	25.25	273	0.22
74	12.43	33.35	5.61	273	100	11.32	33.47	4.80	25.54	245	0.28
84	11.90	33.40	5.38	260	150	9.02	33.75	2.84	26.16	186	0.39
98	11.43	33.47	4.96	247	200	8.57	33.98	2.25	26.41	163	0.48
107	10.70	33.43	4.27	237	250	8.12	34.11	1.70	26.58	146	0.56
131	9.60	33.59	3.33	207	300	7.60	34.19	1.36	26.72	133	0.63
161	8.80	33.85	2.65	176	400	6.60	34.26	0.88	26.91	115	0.76
213	8.48	34.01	2.10	159	500	5.99	34.31	0.30	27.04	103	0.88
276	7.84	34.17	1.50	138	600	5.40	34.34	0.30	27.13	94	0.98
387	6.69	34.25	0.94	117							
513	5.86	34.32	0.28	102							
645	5.13	34.35	0.34	91							

a) Mean value of 33.42 and 33.50‰.

b) Mean value of 33.75 and 33.82‰.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	dyn. m

S10

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CREST; April 17, 1955; 0857 GCT; 31°13'N, 120°50'W; sounding, 2200 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 08°.

93.80

0	14.4	33.34	5.83	312	0	14.4	33.34	5.83	24.84	312	0.00
10	14.35	33.39	5.95	307	10	14.35	33.39	5.97	24.89	307	0.03
31	13.32	33.36	6.07	289	20	14.30	33.38	5.98	24.90	306	0.06
41	13.16	33.34	6.00	287	30	13.32	33.36	6.07	25.08	289	0.09
50	12.74	33.36	5.80	278	50	12.74	33.36	5.80	25.20	278	0.15
60	12.60	33.34	5.66	277	75	11.20	33.33	4.76	25.45	254	0.21
71	11.56	33.33	5.18	259	100	10.08	33.42	3.94	25.73	227	0.28
81	10.80	33.32	4.20	247	150	8.78	33.94	2.66	26.35	168	0.37
92	10.15	33.41	3.90	229	200	8.30	34.05	2.37	26.51	154	0.46
100	10.08	33.42	3.94	227	250	7.80	34.13	1.70	26.65	140	0.53
123	9.24	33.69	3.07	194	300	7.30	34.18	1.05	26.75	130	0.60
152	8.74	33.95	2.63	167	400	6.58	34.26	0.61	26.92	114	0.73
203	8.26	34.06	2.33	152	500	6.08	34.34	0.31	27.05	102	0.84
263	7.63	34.15	1.39	137	600	5.50	34.37	0.25	27.14	94	0.94
366	6.77	34.23	0.72	119							
484	6.18	34.33	0.34	104							
609	5.44	34.37	0.25	93							

CREST; April 17, 1955; 1520 GCT; 30°50'N, 121°33.5'W; sounding, 2000+ fm; wind, 340°, force 5; weather, overcast; sea, rough; wire angle, 18°.

93.90

0	13.7	33.17	5.93	310	0	13.7	33.17	5.93	24.86	310	0.00
10	13.66	33.16	5.94	310	10	13.66	33.16	5.94	24.86	310	0.03
29	13.65	33.17	5.91	309	20	13.65	33.16	5.92	24.86	310	0.06
39	13.63	33.19	5.96	307	30	13.65	33.17	5.92	24.87	309	0.09
48	13.63	33.18	5.91	308	50	13.62	33.17	5.92	24.87	308	0.15
56	13.59	33.16	5.93	308	75	12.83	33.13	5.87	25.00	296	0.23
65	13.14	33.14	5.88	301	100	11.48	33.14	5.63	25.25	272	0.30
74	12.84	33.13	5.88	297	150	9.31	33.48	3.96	25.91	210	0.42
82	12.55	33.14	5.81	291	200	8.35	33.90	3.33	26.38	166	0.52
91	12.14	33.12	5.81	285	250	7.59	33.97	2.77	26.54	150	0.60
113	10.64	33.18	5.26	254	300	6.85	34.01	2.15	26.68	137	0.68
139	9.59	33.38	4.20	222	400	6.20	34.13	0.89	26.86	120	0.81
181	8.64	33.81	3.53	177	500	5.79	34.26	0.38	27.02	105	0.93
234	7.81	33.96	2.97	153							
327	6.53	34.05	1.78	130							
439	6.04	34.19	0.53	113							
561	5.52	34.31	0.30	98							

SPENCER F. BAIRD; April 17, 1955; 2055, 1805 GCT; 28°42.5'N, 124°47'W; sounding, 2360 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 20°, 28°.

96.142

0	16.05	33.67		322	0	16.05	33.67		24.73	322	0.00
9	16.02	33.66		322	10	16.01	33.66		24.73	322	0.03
23	15.99	33.65		322	20	16.00	33.65		24.73	322	0.06
37	15.99	33.66		321	30	15.99	33.65		24.73	322	0.10
55	16.00	33.66		322	50	16.00	33.66		24.74	321	0.16
68	15.99	33.68		320	75	15.99	33.67		24.75	320	0.24
85	15.98	33.67		320	100	15.67	33.61		24.78	318	0.32
108	15.38	33.57		315	150	13.30	33.48		25.18	280	0.47
160	12.73	33.48		269	200	10.30	33.58		25.81	220	0.60
212	9.60	33.63		204	250	8.68	33.87		26.31	172	0.70
266	8.39	33.96		162	300	7.81	34.02		26.55	150	0.79
319	7.54	34.04		144	400	6.56	34.08		26.77	128	0.93
421	6.32	34.09		124	500	5.70	34.15		26.94	112	1.06
532	5.44	34.18		108	600	5.12	34.25		27.09	98	1.17
643	4.96	34.29		94							
705p	4.66	34.34									
918p	4.04	34.46									
1138p	3.32	34.53									
1489p	2.62	34.62									
1929p	2.14	34.64									

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m	

97.30 HORIZON; April 19, 1955; 1817 GCT; 32°15.5'N, 117°09'W; sounding, 33 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 05°.

0	12.88	33.47	5.69	273	0	12.88	33.47	5.69	25.25	273	0.00
10	12.34	33.42	5.51	266	10	12.34	33.42	5.51	25.32	266	0.03
15	12.18	33.48	5.76	259	20	11.97	33.48	5.43	25.44	255	0.05
20	11.97	33.48	5.43	255	30	11.32	33.50	4.81	25.57	242	0.08
25	11.70	33.50	5.19	249							
30	11.32	33.50	4.81	242							
40	10.96	33.48	4.18	237							

97.32 CREST; April 22, 1955; 0841 GCT; 32°11.5'N, 117°17.5'W; sounding, 780 fm; wind, 160°, force 4; weather, clear; sea, slight; wire angle, 05°.

0	15.5	33.52	5.88	321	0	15.5	33.52	5.88	24.74	321	0.00
10	15.40	33.48	5.86	322	10	15.40	33.48	5.86	24.73	322	0.03
30	13.88	33.43	5.94	295	20	15.34	33.47	5.87	24.74	321	0.06
40	12.21	33.35	5.28	269	30	13.88	33.43	5.94	25.02	295	0.10
51	10.98	33.44	4.50	241	50	11.03	33.44	4.57	25.58	242	0.15
61	10.28	33.48	3.84	226	75	9.79	33.70	3.29	26.00	202	0.20
71	9.84	33.63	3.40	208	100	9.20	33.88	2.94	26.23	180	0.25
81	9.68	33.75	3.18	197	150	8.81	34.10	2.35	26.47	157	0.34
91	9.32	33.82	3.02	186	200	8.52	34.23	1.59	26.61	144	0.41
101	9.20	33.88	2.94	180	250	8.03	34.25	1.25	26.71	134	0.48
125	9.20	34.08	2.35	165	300	7.61	34.29	0.90	26.79	126	0.55
154	8.67	34.11	2.35	155	400	7.07	34.33	0.50	26.91	116	0.68
203	8.52	34.23	1.58	143	500	6.48	34.36	0.41	27.01	106	0.79
261	7.94	34.26	1.19	133	600	5.62	34.38	0.34	27.13	94	0.90
364	7.22	34.32	0.56	119							
483	6.60	34.35	0.42	108							
606	5.60	34.38	0.33	94							

97.40 CREST; April 19, 1955; 0216 GCT; 31°54.5'N, 117°51.5'W; sounding, 750 fm; wind, 330°, force 6; weather, partly cloudy; sea, rough; wire angle, 25°.

0	15.5	33.42	5.74	328	0	15.5	33.42	5.74	24.67	328	0.00
9	15.46	33.46	5.75	324	10	15.46	33.46	5.74	24.71	324	0.03
27	15.38	33.48	5.70	321	20	15.41	33.47	5.72	24.73	323	0.06
41	14.10	33.43	5.89	299	30	15.30	33.48	5.70	24.76	320	0.10
50	13.70	33.41	5.72	293	50	13.70	33.41	5.72	25.04	293	0.16
60	13.11	33.37	5.42	284	75	11.19	33.34	4.51	25.47	252	0.23
69	11.46	33.33	4.71	257	100	9.91	33.52	3.69	25.83	217	0.29
78	11.01	33.35	4.36	248	150	8.90	33.91	2.77	26.30	173	0.38
92	10.05	33.47	3.84	223	200	8.39	34.09	2.15	26.52	152	0.47
101	9.90	33.52	3.66	217	250	8.00	34.18	1.52	26.65	140	0.54
122	9.42	33.76	3.23	192	300	7.59	34.23	1.18	26.75	130	0.61
147	8.96	33.89	2.84	175	400	6.73	34.28	0.60	26.92	114	0.74
192	8.44	34.07	2.28	154	500	6.05	34.32	0.31	27.03	103	0.85
246	8.02	34.18	1.56	140	600	(5.53)	(34.35)	(0.30)	(27.13)	(95)	(0.96)
346	7.19	34.26	0.90	122							
463	6.23	34.31	0.36	107							
591	5.58	34.35	0.30	95							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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CREST; April 18, 1955; 2015 GCT; 31°32'N, 118°31'W; sounding, 1200 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 25°.

97.50

0	15.1	33.43	5.80	319	0	15.1	33.43	5.80	24.76	319	0.00
9	15.09	33.45	5.88	318	10	15.09	33.45	5.88	24.78	317	0.03
29	15.04	33.48	5.81	314	20	15.06	33.47	5.83	24.80	316	0.06
41	11.68	33.42	4.93	255	30	15.04	33.48	5.80	24.82	314	0.10
50	11.03	33.40	4.29	245	50	11.03	33.40	4.29	25.54	245	0.15
60	10.25	33.51	3.71	224	75	9.79	33.59	3.37	25.91	210	0.21
69	9.94	33.56	3.51	215	100	9.16	33.80	2.91	26.17	185	0.26
78	9.70	33.62	3.25	207	150	8.69	33.98	2.56	26.39	164	0.35
92	9.19	33.76	2.74	188	200	8.17	34.15	1.84	26.60	144	0.42
101	9.16	33.80	2.93	185	250	7.90	34.23	1.32	26.71	134	0.50
124	8.97	33.91	2.74	174	300	7.58	34.27	0.97	26.79	127	0.56
152	8.65	33.98	2.52	164	400	6.76	34.32	0.49	26.94	112	0.69
202	8.15	34.15	1.82	144	500	6.08	34.36	0.31	27.06	101	0.80
257	7.86	34.24	1.24	133	600	5.49	34.38	0.31	27.15	92	0.90
355	7.10	34.30	0.63	119							
473	6.21	34.35	0.32	104							
603	5.44	34.38	0.31	92							

CREST; April 18, 1955; 1444 GCT; 31°17'N, 119°06.5'W; sounding, 1200 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

97.60

0	14.6	33.48	5.83	305	0	14.6	33.48	5.83	24.91	305	0.00
10	14.54	33.46	5.81	305	10	14.54	33.46	5.81	24.91	305	0.03
29	14.53	33.46	5.84	305	20	14.54	33.46	5.83	24.91	305	0.06
43	14.47	33.51	5.81	301	30	14.53	33.46	5.84	24.92	305	0.09
52	14.43	33.48	5.83	302	50	14.44	33.48	5.83	24.95	302	0.15
62	14.16	33.40	5.65	302	75	11.96	33.30	5.05	25.29	269	0.22
71	12.48	33.30	5.20	278	100	9.94	33.39	3.98	25.72	228	0.29
79	11.44	33.30	4.86	259	150	9.37	33.91	2.59	26.24	179	0.39
93	10.25	33.36	4.13	235	200	8.60	34.04	2.32	26.45	159	0.48
102	9.90	33.39	3.97	227	250	8.18	34.17	1.48	26.62	143	0.55
124	9.59	33.58	3.63	208	300	7.76	34.26	1.07	26.75	130	0.62
152	9.36	33.92	2.59	179	400	6.91	34.29	0.69	26.89	117	0.75
202	8.59	34.04	2.34	159	500	6.25	34.27	0.41	26.97	110	0.87
261	8.07	34.20	1.30	139	600	5.79	34.34	0.31	27.09	98	0.98
369	7.16	34.29	0.79	120							
492	6.34	34.27	0.45	111							
623	5.66	34.37	0.30	95							

CREST; April 18, 1955; 0840 GCT; 30°58'N, 119°50'W; sounding, 2150 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 11°.

97.70

0	14.7	33.50	5.72	306	0	14.7	33.50	5.72	24.90	306	0.00
10	14.66	33.50	5.70	305	10	14.66	33.50	5.70	24.91	305	0.03
30	14.66	33.49	5.85	306	20	14.66	33.50	5.75	24.90	306	0.06
41	14.58	33.46	5.89	307	30	14.66	33.49	5.85	24.90	306	0.09
51	14.36	33.48	5.47	300	50	14.39	33.48	5.50	24.96	301	0.15
61	12.57	33.40	5.49	272	75	11.52	33.39	5.08	25.46	253	0.22
71	11.78	33.39	5.18	258	100	10.42	33.37	4.71	25.63	237	0.28
80	11.24	33.40	4.95	249	150	9.12	33.85	3.05	26.23	180	0.39
91	10.74	33.37	4.87	242	200	8.60	34.05	2.36	26.46	158	0.47
100	10.42	33.37	4.71	237	250	7.97	34.15	1.92	26.64	141	0.55
124	9.54	33.67	3.50	200	300	7.32	34.21	1.48	26.78	128	0.62
152	9.09	33.86	3.02	179	400	6.50	34.31	0.75	26.97	109	0.74
200	8.60	34.05	2.36	158	500	6.00	34.39	0.41	27.09	98	0.85
256	7.85	34.16	1.87	139	600	(5.45)	(34.42)	(0.30)	(27.20)	(88)	(0.95)
351	6.80	34.26	1.03	118							
467	6.18	34.37	0.48	101							
592	5.54	34.44	0.30	89							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

97.80

CREST; April 18, 1955; 0218 GCT; 30°32.5'N, 120°31.5'W; sounding, 2150 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	14.4	33.38	5.84	309	0	14.4	33.38	5.84	24.87	309	0.00
10	14.44	33.35	5.71	312	10	14.44	33.35	5.71	24.84	312	0.03
30	14.34	33.40	5.73	306	20	14.39	33.38	5.71	24.87	309	0.06
40	14.32	33.40	5.80	305	30	14.34	33.40	5.73	24.90	306	0.09
51	13.54	33.39	5.93	291	50	13.64	33.39	5.93	25.05	292	0.15
60	12.90	33.35	5.69	282	75	11.98	33.38	5.40	25.36	263	0.22
69	12.48	33.37	5.46	273	100	10.61	33.40	4.84	25.62	238	0.28
79	11.50	33.38	5.40	254	150	8.61	33.81	3.05	26.27	176	0.39
88	10.77	33.28	5.16	249	200	7.89	33.96	2.63	26.50	154	0.47
98	10.68	33.39	4.93	240	250	7.40	34.03	1.93	26.62	143	0.55
122	9.40	33.55	4.26	207	300	6.90	34.07	1.36	26.73	133	0.62
150	8.61	33.81	3.05	176	400	6.08	34.16	0.70	26.91	116	0.75
198	7.92	33.96	2.66	155	500	5.60	34.26	0.40	27.05	102	0.86
255	7.38	34.04	1.89	142	600	(5.19)	(34.32)	(0.35)	(27.14)	(94)	(0.97)
356	6.36	34.12	0.94	122							
473	5.74	34.24	0.44	106							
598	5.20	34.32	0.35	94							

97.90

CREST; April 17, 1955; 2044 GCT; 30°14.5'N, 121°10.5'W; sounding, 2200 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	14.2	33.36	5.89	306	0	14.2	33.36	5.89	24.90	306	0.00
10	14.10	33.35	5.88	305	10	14.10	33.35	5.88	24.92	305	0.03
29	14.05	33.33	5.87	305	20	14.07	33.34	5.87	24.91	305	0.06
39	14.02	33.36	5.98	303	30	14.05	33.33	5.87	24.91	305	0.09
49	14.02	33.34	5.88	304	50	14.02	33.34	5.88	24.92	304	0.15
59	14.01	33.33	5.83	304	75	13.38	33.37	5.81	25.08	289	0.23
68	13.60	33.40	5.82	291	100	11.86	33.26	5.67	25.28	270	0.30
78	13.28	33.36	5.81	288	150	9.09	33.58	3.94	26.02	200	0.42
87	12.99	33.36	5.69	283	200	8.60	33.88	2.58	26.32	171	0.51
97	12.11a)	33.26	5.69	274	250	8.18	34.03	1.87	26.51	153	0.59
119	10.48	33.33	5.11	240	300	7.56	34.11	1.39	26.66	139	0.67
146	9.19	33.54	4.08	205	400	6.45	34.13	0.83	26.83	122	0.80
190	8.68	33.85	2.79	174	500	5.72	34.14	0.52	26.93	113	0.93
243	8.22	34.02	1.97	155							
336	7.12	34.13	1.09	131							
449	6.02	34.13	0.66	118							
571	5.28	34.19	0.33	104							

100.29

HORIZON; April 19, 1955; 1411 GCT; 31°42.5'N, 116°43.5'W; sounding, 90 fm; wind, 040°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.

0	11.38	33.55	5.11	240	0	11.38	33.55	5.11	25.60	240	0.00
10	11.02	33.51	4.69	236	10	11.02	33.51	4.69	25.63	236	0.02
20	10.25	33.56	3.84	220	20	10.25	33.56	3.84	25.81	220	0.05
30	9.96	33.51	3.64	219	30	9.96	33.51	3.64	25.82	219	0.07
40	9.84	33.60	3.59	211	50	9.57	33.59	3.56	25.95	206	0.11
50	9.57	33.59	3.56	206	75	9.10	33.78	2.99	26.17	185	0.16
60	9.35	33.61	3.35	202	100	9.21	33.94	2.43	26.27	175	0.21
70	9.10	33.77	3.11	186							
80	9.11	33.80	2.89	184							
90	9.16	33.86	2.76	180							
100	9.21	33.94	2.43	175							

a) Alternate value, 12.44°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; April 19, 1955; 1306 GCT; 31°42'N, 116°46.5'W; sounding, 230 fm; wind, 030°, force 3; weather, partly cloudy; sea, rough; wire angle, 02°.

100.30

0	12.32	33.55	5.57	256	0	12.32	33.55	5.57	25.43	256	0.00
10	12.12	33.51	5.32	256	10	12.12	33.51	5.32	25.43	256	0.03
20	10.21	33.51	3.94	223	20	10.21	33.51	3.94	25.77	223	0.05
30	9.90	33.57	3.59	213	30	9.90	33.57	3.59	25.88	213	0.07
35	9.88	33.57	3.56	213	50	9.59	33.67	3.24	26.01	201	0.11
45	9.74	33.61	3.38	208	75	9.09	33.80	2.90	26.19	184	0.16
55	9.42	33.74	3.11	193	100	9.32	33.95	2.34	26.27	176	0.21
65	9.20	33.78	3.82r	187	150	9.35	34.26	1.44	26.51	153	0.29
80	9.06	33.82	2.05r	182	200	9.00	34.33	1.03	26.62	143	0.36
100	9.32	33.95	2.34	176	250	8.50	34.32	0.93	26.69	136	0.44
126	9.39	34.15	1.79	162	300	8.00	34.35	0.74	26.79	126	0.50
169	9.23	34.31	1.13	149							
208	8.92	34.33	1.01	142							
248	8.56	34.32	0.94	137							
307	7.91	34.36	0.73	125							

CREST; April 19, 1955; 0829 GCT; 31°20'N, 117°26.5'W; sounding, 1050 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 39°.

100.40

0	15.4	33.40	5.81	328	0	15.4	33.40	5.81	24.67	328	0.00
8	15.34	33.41	5.84	326	10	15.34	33.41	5.67	24.69	326	0.03
24	15.35	33.40	5.48	326	20	15.35	33.40	5.57	24.69	326	0.06
37	14.38	33.34	5.74	311	30	15.29	33.39	5.49	24.69	326	0.10
44	13.80	33.36	6.02	298	50	13.27	33.33	5.92	25.08	289	0.16
52	13.00	33.32	5.81	286	75	10.71	33.36	4.13	25.57	242	0.23
60	12.01	33.30	5.14	269	100	9.69	33.67	3.37	25.99	202	0.28
68	11.10	33.31	4.40	252	150	8.66	33.89	2.90	26.32	171	0.38
79	10.53	33.40	4.01	236	200	7.90	34.02	2.42	26.54	150	0.46
86	10.21	33.46	3.79	227	250	7.99	34.23	1.41	26.69	136	0.53
107	9.47	33.73	3.15	195	300	7.98	34.32	0.81	26.77	129	0.60
128	9.08	33.81	2.93	183	400	6.69	34.27	0.62	26.91	116	0.73
166	8.39	33.94	2.85	163	500	6.08	34.36	0.39	27.06	101	0.84
209	7.82	34.05	2.36	147							
288	8.04	34.32	0.90	130							
385	6.84	34.26	0.66	118							
502	6.06	34.36	0.39	101							

CREST; April 19, 1955; 1421, 1452 GCT; 30°59.5'N, 118°08'W; sounding, 2000+ fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 10°, 15°.

100.50

0	15.0	33.40	5.60	319	0	15.0	33.40	5.60	24.76	319	0.00
10	15.14	33.47	5.64	317	10	15.14	33.47	5.64	24.78	317	0.03
31	15.14	33.38	5.70	324	20	15.14	33.43	5.65	24.75	320	0.06
45	14.48	33.40	5.83	309	30	15.14	33.38	5.68	24.72	324	0.10
55	12.76	33.34	5.33	280	50	13.55	33.37	5.61	25.05	292	0.16
64	11.52	33.29	4.63	261	75	10.79	33.38	4.09	25.57	242	0.22
73	10.96	33.34	4.21	247	100	9.67	33.60	3.22	25.94	207	0.28
82	10.23	33.57	3.64	219	150	9.05	33.93	2.44	26.29	174	0.38
96	9.69	33.58	3.31	209	200	8.42	34.07	1.94	26.50	154	0.46
107	9.65	33.64	3.07	204	250	8.13	34.19	1.52	26.65	140	0.54
					300	7.72	34.23	0.90	26.73	132	0.60
130	9.28	33.85	2.72	183	400	6.72					
159	9.00	33.96	2.38	171							
211	8.36	34.10	1.87	151							
271	8.00	34.21	1.14	137							
380	6.93	34.25	0.50	120							
487p	6.14	34.16u	1.40u	-							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

100.60

CREST; April 19, 1955; 2015 GCT; 30°41.5'N, 118°46'W; sounding, 1600 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°.

0	15.2	33.43	5.77	321	0	15.2	33.43	5.77	24.74	321	0.00
10	15.01	33.40	5.81	320	10	15.01	33.40	5.81	24.76	320	0.03
25	14.95	33.46	5.75	314	20	14.98	33.44	5.77	24.80	316	0.06
55	13.88	33.35	5.69	301	30	14.95	33.46	5.74	24.82	314	0.10
64	12.30	33.22	5.52	280	50	14.59	33.43	5.70	24.87	309	0.16
74	11.36	33.22	4.95	263	75	11.30	33.22	4.87	25.36	263	0.23
89	10.34	33.36	4.24	236	100	9.44	33.60	3.48	25.97	204	0.29
98	9.50	33.58	3.57	206	150	8.85	33.91	2.82	26.31	172	0.38
131	9.10	33.85	2.99	180	200	7.99	34.02	2.57	26.53	151	0.46
160	8.76	33.93	2.79	169	250	7.80	34.13	1.66	26.64	141	0.54
211	7.94	34.04	2.38	149	300	7.57	34.23	1.05	26.75	130	0.61
287	7.66	34.22	1.19	132	400	6.70	34.28	0.57	26.92	114	0.74
393	6.77	34.28	0.58	115	500	5.96	34.35	0.38	27.07	100	0.85
535	5.73	34.37	0.32	96	600	5.40	34.39	0.33	27.17	91	0.95
725	4.78	34.43	0.35	81	700	4.88	34.42	0.33	27.26	82	1.04
959	4.01	34.49	0.58	69	800	4.49	34.45	0.42	27.32	76	1.13
1264	3.31	34.55	0.87	57	1000	3.93	34.49	0.62	27.41	68	1.28

100.70

CREST; April 20, 1955; 0200, 0233 GCT; 30°20'N, 119°21'W; sounding, 2050 fm; wind, 360°, force 4; weather, partly cloudy; sea, rough; wire angle, 40°, 40°.

0	14.9	33.43	5.74	315	0	14.9	33.43	5.74	24.81	315	0.00
8	14.90	33.41	5.73	316	10	14.90	33.41	5.73	24.79	316	0.03
20	14.87	33.42	5.72	315	20	14.87	33.42	5.72	24.81	315	0.06
44	14.34	33.33	5.73	311	30	14.74	33.41	5.72	24.82	314	0.10
52	13.76	33.24	5.81	306	50	13.90	33.26	5.80	24.88	308	0.16
59	13.08	33.21	5.79	295	75	12.71	33.30	5.36	25.16	282	0.23
71	12.88	33.30	5.47	285	100	10.58	33.34	4.51	25.58	241	0.30
86	12.10	33.31	5.20	270	150	9.14	33.74	3.15	26.13	189	0.41
106	9.91	33.36	4.21	229	200	8.41	34.07	2.20	26.50	154	0.49
					250	7.78	34.13	1.69	26.64	140	0.57
117	9.58	33.40	4.12	221	300	7.20	34.16	1.28	26.75	130	0.64
150	9.14	33.74	3.15	189	400	6.39	34.23	0.71	26.92	115	0.77
199	8.42	34.07	2.21	154	500	5.88	34.34	0.34	27.07	100	0.88
267	7.58	34.14	1.55	137	600	5.40	34.41	0.29	27.18	90	0.98
360	6.62	34.19	0.94	121	700	4.99	34.45	0.32	27.27	81	1.07
491	5.93	34.34	0.36	100	800	4.61	34.48	0.39	27.33	75	1.16
667	5.10	34.44	0.29	84	1000	(3.92)	(34.53)	(0.58)	(27.44)	(64)	(1.31)
935	4.12	34.52	0.53	67							

100.80

CREST; April 20, 1955; 0834, 0908 GCT; 30°02.5'N, 120°02'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 03°, 03°.

0	14.4	33.39	5.68	307	0	14.4	33.39	5.68	24.89	307	0.00
11	14.39	33.37	5.78	309	10	14.39	33.37	5.76	24.87	309	0.03
25	14.38	33.37	5.68	309	20	14.38	33.37	5.72	24.87	309	0.06
50	14.11	33.37	5.63	303	30	14.33	33.37	5.65	24.88	308	0.09
62	13.62	33.37	5.84	294	50	14.11	33.37	5.63	24.93	303	0.15
					75	12.80	33.34	5.59	25.18	280	0.23
63	13.51	33.38	5.78	291	100	10.93	33.42	4.72	25.58	242	0.29
71	13.06	33.32	5.68	287	150	9.11	33.76	3.04	26.15	187	0.40
79	12.43	33.36	5.42	273	200	8.21	33.94	2.99	26.43	161	0.49
99	10.98	33.42	4.73	242	250	7.49	33.95	2.54	26.54	150	0.57
123	9.82	33.49	3.77	218	300	7.30	34.03	1.74	26.64	141	0.64
151	9.08	33.76	3.03	187	400	7.18	34.35	0.58	26.90	116	0.78
200	8.21	33.94	2.99	161	500	6.75	34.44	0.26	27.04	103	0.89
270	7.32	33.96	2.19	147	600	5.88	34.46	0.29	27.17	91	1.00
368	7.22	34.30	0.91	120	700	5.00	34.47	0.38	27.28	80	1.09
500	6.75	34.44	0.26	103	800	4.45	34.47	0.45	27.34	74	1.17
681	5.11	34.47	0.36	82	1000	3.81	34.51	0.66	27.44	65	1.32
903	4.10	34.48	0.55	70							
1204	3.40	34.58	0.82	56							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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CREST; April 20, 1955; 1457 GCT; 29°45'N, 120°41'W; sounding, 2200+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 20°.

100.90

0	14.4	33.38	5.38	309	0	14.4	33.38	5.38	24.87	309	0.00
10	14.42	33.36	5.59	311	10	14.42	33.36	5.59	24.85	311	0.03
24	14.43	33.34	5.52	312	20	14.43	33.35	5.54	24.84	312	0.06
49	14.50	33.42	5.56	308	30	14.43	33.36	5.53	24.84	312	0.09
58	14.16	33.35	5.78	306	50	14.49	33.42	5.57	24.89	307	0.16
67	13.66	33.30	5.06 _u	300	75	13.53	33.31	5.70	25.00	296	0.23
78	13.44	33.31	5.69	295	100	12.47	33.37	5.28	25.25	272	0.30
96	12.79	33.36	5.41	279	150	9.39	33.57	3.21	25.96	206	0.42
118	10.81	33.39	4.48	242	200	8.40	33.99	2.45	26.44	160	0.52
144	9.55	33.52	3.39	211	250	7.92	34.08	1.97	26.58	146	0.59
186	8.58	33.94	2.60	166	300	7.01	34.09	1.61	26.72	134	0.67
245	8.00	34.07	2.04	148	400	6.19	34.23	0.89	26.94	112	0.79
333	6.52	34.10	1.44	126	500	5.73	34.32	0.47	27.07	100	0.90
444	6.00	34.28	0.67	106	600	5.27	34.37	0.38	27.17	91	1.01
602	5.25	34.37	0.37	91	700	4.81	34.43	0.40	27.27	81	1.10
797	4.54	34.49	0.45	74	800	4.52	34.49	0.45	27.35	73	1.18
1082	3.76	34.64	0.69	55	1000	3.99	34.60	0.60	27.49	60	1.33

SPENCER F. BAIRD; April 22, 1955; 2008 GCT; 28°35'N, 121°45'W; sounding, 2380 fm; wind, 340°, force 2; weather, partly cloudy; sea, rough; wire angle, 08°.

102.110

0	16.48	33.64		334	0	16.48	33.64		24.61	334	0.00
10	16.36	33.61		333	10	16.36	33.61		24.62	333	0.03
25	16.33	33.61		332	20	16.33	33.61		24.63	332	0.07
40	16.31	33.61		332	30	16.33	33.61		24.63	332	0.10
59	16.12	33.58		330	50	16.21	33.60		24.64	331	0.17
74	16.06	33.60		327	75	16.06	33.60		24.68	327	0.25
93	16.04	33.59		327	100	15.94	33.57		24.69	326	0.33
117	15.43	33.51		320	150	12.68	33.41		25.24	274	0.48
173	10.59	33.37		239	200	9.71	33.48		25.83	218	0.61
231	8.98	33.74		186	250	8.67	33.85		26.30	174	0.71
289	8.07	34.02		153	300	7.92	34.03		26.55	150	0.79
345	7.31	34.08		138	400	6.70	34.12		26.78	128	0.94
456	6.14	34.16		117	500	5.79	34.21		26.98	108	1.06
571	5.38	34.28		99	600	5.26	34.33		27.13	94	1.17
685	4.99	34.38		87	700	(4.96)	(34.40)		(27.22)	(86)	(1.27)

HORIZON; April 19, 1955; 0009 GCT; 31°02.5'N, 116°24.5'W; sounding, 45 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 21°.

103.30

0	11.84	33.40		259	0	11.84	33.40		25.40	259	0.00
10	11.80	33.40		258	10	11.80	33.40		25.41	258	0.03
15	11.75	33.40		257	20	11.65	33.43		25.46	253	0.05
20	11.65	33.43		253	30	11.30	33.41		25.50	249	0.08
24	11.58	33.40		254							
29	11.37	33.40		251							
38	10.16	33.55		219							
49	9.56	33.56		209							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

103.35

HORIZON; April 19, 1955; 0300 GCT; 30°55'N, 116°45'W; sounding, 980 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 12°.

0	15.16	33.34	6.36	327	0	15.16	33.34	6.36	24.68	327	0.00
10	15.37	33.32	5.43	333	10	15.37	33.32	5.43	24.62	333	0.03
30	15.39	33.34	5.80	332	20	15.38	33.33	5.60	24.63	332	0.07
45	15.24	33.33	5.63	330	30	15.39	33.34	5.80	24.62	332	0.10
59	13.53	33.19	6.33	305	50	15.02	33.31	5.69	24.68	327	0.16
69	12.50	33.18	5.83	287	75	12.05	33.15	5.46	25.17	281	0.24
78	11.83	33.15	5.29	277	100	10.07	33.28	4.69	25.62	238	0.31
94	10.34	33.25	4.78	244	150	9.28	33.93	2.83	26.26	176	0.41
104	9.87	33.32	4.53	232	200	8.51	34.07	2.21	26.49	155	0.50
118	9.43	33.58	3.43	205	250	8.43	34.23	1.58	26.62	143	0.57
146	9.36	33.92	2.88	179	300	7.93	34.26	1.32	26.73	132	0.64
176	8.82	34.00	2.50	165	400	7.05	34.30	0.66	26.88	118	0.77
235	8.54	34.20	1.63	146	500	6.23	34.34	0.63	27.02	105	0.89
303	7.88	34.27	1.29	131	600	5.69	34.38	0.63	27.12	95	1.00
421	6.91	34.31	0.63	115	700	5.20	34.42	0.63	27.22	86	1.09
563	5.91	34.36	0.63	99							
732	5.02	34.44	0.63	83							

103.40

HORIZON; April 19, 1955; 0609 GCT; 30°45'N, 117°05.5'W; sounding, 1000 fm; wind, 320°, force 7; weather, partly cloudy; sea, very rough; wire angle, 07°.

0	15.66	33.47	5.42	328	0	15.66	33.47	5.42	24.67	328	0.00
10	15.70	33.48	5.55	328	10	15.70	33.48	5.55	24.67	328	0.03
30	15.72	33.45	5.54	330	20	15.72	33.47	5.55	24.66	329	0.07
45	15.52	33.42	5.57	329	30	15.72	33.45	5.54	24.65	330	0.10
60	14.12	33.32	5.77	307	50	15.30	33.41	5.58	24.70	326	0.16
70	12.90	33.25	5.74	289	75	12.55	33.23	5.62	25.13	284	0.24
80	12.23	33.22	5.50	279	100	10.70	33.32	4.87	25.54	245	0.31
95	10.96	33.28	4.99	252	150	8.89	33.71	3.33	26.15	188	0.42
105	10.53	33.35	4.72	240	200	8.55	33.98	2.91	26.42	162	0.51
120	9.85	33.44	3.98	222	250	8.04	34.12	2.16	26.60	145	0.58
149	8.92	33.71	3.36	188	300	7.29	34.14	1.53	26.72	133	0.66
178	8.67	33.89	3.12	171	400	6.43	34.23	0.70	26.91	115	0.79
237	8.21	34.11	2.33	148	500	5.99	34.36	0.38	27.08	99	0.90
307	7.20	34.14	1.46	132	600	5.50	34.41	0.33	27.18	90	1.00
425	6.32	34.25	0.59	112	700	5.00	34.41	0.32	27.23	85	1.09
564	5.70	34.41	0.34	93							
706	4.98	34.41	0.32	85							

103.50

CREST; April 21, 1955; 2041 GCT; 30°27'N, 117°41'W; sounding, 1350 fm; wind, 330°, force 2; weather, overcast; sea, moderate; wire angle, 05°.

0	15.4	33.53	5.65	318	0	15.4	33.53	5.65	24.77	318	0.00
11	15.36	33.49	5.63	320	10	15.36	33.49	5.64	24.76	320	0.03
31	15.35	33.53	5.60	317	20	15.36	33.51	5.61	24.77	319	0.06
41	15.32	33.54	5.56	316	30	15.35	33.53	5.60	24.78	318	0.10
51	15.32	33.52	5.58	317	50	15.32	33.52	5.57	24.79	317	0.16
61	14.95	33.49	5.60	312	75	11.49	33.39	5.02	25.46	253	0.23
71	12.00	33.40	5.29	262	100	9.59	33.50	4.06	25.87	214	0.29
82	10.82	33.38	4.59	243	150	8.80	33.87	3.01	26.29	174	0.39
91	10.19	33.40	4.52	231	200	8.15	34.00	2.53	26.49	155	0.47
100	9.59	33.50	4.06	214	250	7.59	34.12	1.98	26.67	138	0.54
124	9.18	33.67	3.42	194	300	7.17	34.19	1.45	26.78	128	0.62
154	8.76	33.88	2.97	173	400	6.42	34.25	0.79	26.93	114	0.74
203	8.12	34.01	2.50	154	500	5.77	34.32	0.43	27.07	100	0.85
262	7.48	34.14	1.86	136	600	5.26	34.43	0.30	27.21	87	0.95
364	6.66	34.23	0.92	118							
482	5.85	34.30	0.46	103							
607	5.24	34.43	0.30	86							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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CREST; April 21, 1955; 1312 GCT; 30°04.5'N, 118°23.5'W; sounding, 1875 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 07°.

103.60

0	15.4	33.48	5.64	322	0	15.4	33.48	5.64	24.73	322	0.00
10	15.22	33.49	5.68	317	10	15.22	33.49	5.68	24.78	317	0.03
30	14.99	33.50	5.64	312	20	15.09	33.50	5.64	24.82	314	0.06
41	14.96	33.46	5.68	314	30	14.99	33.50	5.64	24.84	312	0.10
51	14.36	33.41	5.76	306	50	14.53	33.42	5.74	24.88	308	0.16
61	13.06	33.31	5.92	288	75	12.78	33.39	5.58	25.21	277	0.23
71	12.99	33.39	5.71	280	100	10.25	33.37	4.59	25.66	234	0.30
80	11.70	33.51r	5.42	-	150	8.97	33.72	3.19	26.15	188	0.40
90	10.94	33.27	5.31	253	200	8.36	33.94	2.62	26.41	163	0.49
98	10.36	33.35	4.71	237	250	7.65	34.06	1.99	26.61	144	0.57
123	9.49	33.58	3.66	206	300	7.19	34.12	1.51	26.72	133	0.64
153	8.92	33.73	3.11	186	400	6.39	34.20	0.74	26.89	117	0.77
201	8.36	33.94	2.61	162	500	5.78	34.26	0.43	27.02	104	0.88
260	7.56	34.07	1.88	142	600	5.35	34.33	0.35	27.13	95	0.99
362	6.64	34.17	0.94	122							
479	5.82	34.25	0.47	106							
603	5.34	34.33	0.34	94							

CREST; April 21, 1955; 0735 GCT; 29°44.5'N, 119°05'W; sounding, 2000 fm; wind, 330°, force 2; weather, clear; sea, calm; wire angle, 08°.

103.70

0	14.8	33.29	5.64	323	0	14.8	33.29	5.64	24.72	323	0.00
10	14.69	33.30	5.64	320	10	14.69	33.30	5.64	24.75	320	0.03
30	14.74	33.30	5.65	321	20	14.72	33.30	5.64	24.75	321	0.06
40	14.74	33.30	5.62	321	30	14.74	33.30	5.65	24.74	321	0.10
51	14.75	33.32	5.69	320	50	14.75	33.32	5.69	24.75	320	0.16
61	14.72	33.33	5.69	319	75	14.60	33.28	5.62	24.76	320	0.24
71	14.70	33.30	5.62	320	100	13.24	33.21	5.68	24.98	298	0.32
81	14.06	33.23	5.68	313	150	10.21	33.23	4.80	25.55	245	0.46
91	13.57	33.24	5.72	302	200	8.72	33.70	3.65	26.17	186	0.57
100	13.24	33.21	5.68	298	250	8.00	34.00	2.28	26.51	153	0.66
126	12.50	33.26	5.40	281	300	7.31	34.05	1.75	26.65	140	0.73
154	10.03	33.23	4.76	241	400	6.23	34.10	1.06	26.83	123	0.87
202	8.66	33.71	3.58	185	500	5.70	34.21	0.52	26.99	108	0.99
259	7.86	34.02	2.10	150	600	5.39	34.30	0.34	27.10	97	1.10
361	6.59	34.07	1.37	129							
478	5.80	34.19	0.60	110							
602	5.39	34.30	0.34	97							

CREST; April 20, 1955; 2145 GCT; 29°26'N, 119°44.5'W; sounding, 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

103.80

0	16.0	33.50	5.54	333	0	16.0	33.50	5.54	24.62	333	0.00
10	15.66	33.45a)	5.62	329	10	15.66	33.45	5.62	24.66	329	0.03
30	15.64	33.46	5.88	328	20	15.65	33.45	5.74	24.66	329	0.07
40	15.62	33.51	5.55	325	30	15.64	33.46	5.88	24.67	328	0.10
51	15.64	33.50	5.57	326	50	15.64	33.50	5.57	24.70	326	0.16
61	15.58	33.48	5.58	325	75	14.84	33.38	5.69	24.78	318	0.24
70	15.03	33.42	5.73	319	100	13.85	33.40	5.49	25.00	296	0.32
81	14.66	33.36	5.60	315	150	10.20	33.32	4.70	25.62	237	0.46
91	14.21	33.39	5.62	304	200	8.52	33.83	3.55	26.30	173	0.56
100	13.85	33.40	5.49	296	250	7.99	33.98	2.74	26.50	154	0.65
125	11.98	33.27	5.26	271	300	7.40	34.04	2.09	26.63	142	0.72
154	9.91	33.34	4.58	230	400	6.41	34.16	1.27	26.86	120	0.86
202	8.50	33.84	3.53	172	500	5.79	34.27	0.58	27.03	104	0.98
260	7.82	34.00	2.55	151	600	5.36	34.34	0.45	27.14	94	1.08
363	6.76	34.12	1.51	127							
480	5.84	34.25	0.63	106							
606	5.31	34.34	0.43	93							

a) Alternate value, 33.51‰, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T}{cm/g}$	dyn. m

107.32

HORIZON; April 18, 1955; 1832, 1907 GCT; 30°26'N, 116°11.5'W;^{a)} sounding, 800 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 12°, 09°.

0	13.58	33.60	7.06b)	276	0	13.58	33.60		25.22	276	0.00
10	13.39	33.58	6.98	274	10	13.39	33.58		25.24	274	0.03
30	12.52	33.58	5.78	258	20	13.08	33.58		25.29	269	0.06
45	10.28	33.45	3.68	228	30	12.52	33.58		25.41	258	0.08
59	9.84	33.72	2.95	201	50	10.07	33.49		25.78	223	0.13
68	9.75	33.82	2.60	193	75	9.62	33.86		26.14	188	0.18
78	9.60	33.88	2.60	186	100	9.35	34.01		26.31	172	0.23
91	9.58	33.97	2.28	179	150	8.82	34.08		26.45	159	0.31
101	9.29	34.01	2.64	171	200	9.26	34.35		26.59	146	0.39
114	9.18	34.05	2.33	167	250	9.20	34.43		26.66	139	0.46
124p	9.00	34.06	2.20	163	300	8.53	34.42		26.76	129	0.53
140	8.86	34.01r	2.35	-	400	7.66	34.43		26.89	117	0.65
					500	6.64	34.38		27.00	107	0.77
150	8.82	34.08	2.29	159	600	5.85	34.36		27.09	98	0.88
180	9.23	33.69r	3.09r	-	700	(5.41)	(34.41)		(27.18)	(89)	(0.98)
240	9.30	34.42	0.78	141							
307	8.43	34.42	0.66	129							
421	7.46	34.43	0.43	113							
557	6.08	34.36	0.42	101							
694	5.43	34.41	0.34	90							

107.35

HORIZON; April 18, 1955; 1633 GCT; 30°19.5'N, 116°21.5'W; sounding, 1050 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 12°.

0	13.97	33.42	5.89	297	0	13.97	33.42	5.89	25.00	297	0.00
10	13.99	33.37	5.90	301	10	13.99	33.37	5.90	24.96	301	0.03
30	13.56	33.40	6.07	290	20	13.73	33.39	6.02	25.01	295	0.06
45	13.48	33.38	5.56	290	30	13.56	33.40	6.07	25.07	290	0.09
60	11.85	33.24	5.22	271	50	13.32	33.36	5.45	25.08	289	0.15
68	10.40	33.30	4.56	241	75	10.17	33.34	4.53	25.66	234	0.21
78	10.08	33.36	4.51	232	100	9.50	33.56	3.72	25.93	208	0.27
93	9.60	33.50	3.89	214	150	9.28	34.07	2.20	26.37	167	0.36
103	9.47	33.58	3.61	206	200	8.66	34.21	1.73	26.57	148	0.44
118	9.43	33.72	3.16	195	250	8.17	34.29	1.27	26.71	134	0.52
147	9.32	34.05	2.28	169	300	7.82	34.34	0.92	26.81	125	0.58
174	9.02	34.14	1.93	158	400	7.00	34.36	0.58	26.94	112	0.70
232	8.28	34.27	1.43	137	500	6.40	34.40	0.44	27.05	102	0.82
298	7.83	34.34	0.92	125	600	5.89	34.43	0.35	27.13	94	0.92
414	6.89	34.36	0.56	111	700	(5.38)	(34.43)	(0.30)	(27.20)	(87)	(1.02)
551	6.15	34.42	0.39	97							
692	5.40	34.43	0.30	88							

a) Position of second cast approximately two and one-half miles southwest of first cast.

b) Oxygen values too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

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HORIZON; April 18, 1955; 1322 GCT; 30°09'N, 116°39.5'W; sounding, 1600 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 10°.

107.40

0	15.73	33.37	5.61	337	0	15.73	33.37	5.61	24.58	337	0.00
10	15.77	33.37	5.69	338	10	15.77	33.37	5.69	24.57	338	0.03
30	15.66	33.37	5.49	336	20	15.74	33.37	5.69	24.58	337	0.07
45	14.56	33.34	5.40	315	30	15.66	33.37	5.49	24.59	336	0.10
60	13.26	33.20	5.57	299	50	14.30	33.30	5.41	24.84	312	0.17
70	13.24	33.23	5.64	297	75	13.05	33.28	5.45	25.07	290	0.24
79	12.77	33.30	5.22	283	100	11.38	33.29	5.10	25.40	258	0.31
93	11.63	33.30	5.13	263	150	9.04	33.66	3.20	26.08	194	0.42
103	11.23	33.29	5.09	257	200	8.41	33.93	2.92	26.39	165	0.51
118	9.88	33.38	4.33	227	250	8.06	34.12	2.00	26.59	145	0.59
146	9.11	33.60	3.23	199	300	8.03	34.28	1.25	26.73	133	0.67
175	8.77	33.85	3.20	175	400	7.30	34.39	0.47	26.92	114	0.79
232	8.05	34.07	2.40	149	500	6.30	34.37	0.35	27.04	103	0.91
299	8.04	34.28	1.25	133	600	5.60	34.38	0.34	27.13	94	1.01
416	7.17	34.39	0.41	112	700	(5.12)	(34.44)	(0.30)	(27.24)	(84)	(1.11)
553	5.85	34.36	0.34	98							
692	5.15	34.44	0.30	84							

HORIZON; April 18, 1955; 0811 GCT; 29°51'N, 117°20.5'W; sounding, 1425 fm; wind, 320°, force 4; weather, overcast; sea, very rough; wire angle, 08°.

107.50

0	15.19	33.32	5.62	329	0	15.19	33.32	5.62	24.66	329	0.00
10	15.24	33.29	5.61	332	10	15.24	33.29	5.61	24.62	332	0.03
30	15.24	33.34	5.62	329	20	15.24	33.32	5.61	24.64	331	0.07
45	13.89	33.22	5.85	310	30	15.24	33.34	5.62	24.66	329	0.10
60	13.47	33.26	5.85	299	50	13.71	33.22	5.85	24.89	307	0.16
70	13.29	33.21	5.59	299	75	13.14	33.21	5.60	25.00	296	0.24
79	12.97	33.21	5.62	293	100	11.10	33.19	5.13	25.37	261	0.31
94	11.40	33.17	5.31	268	150	9.04	33.62	3.39	26.05	197	0.42
104	10.89	33.22	5.01	255	200	8.34	33.90	2.71	26.38	165	0.52
118	9.95	33.35	4.44	231	250	7.81	34.03	2.31	26.56	148	0.60
148	9.09	33.60	3.46	199	300	7.39	34.14	1.54	26.71	134	0.67
177	8.61	33.83	2.88	175	400	6.90	34.25	0.78	26.87	119	0.80
235	7.99	33.99	2.46	153	500	6.20	34.31	0.39	27.00	107	0.92
303	7.35	34.14	1.51	134	600	5.61	34.34	0.35	27.11	97	1.03
421	6.78	34.27	0.59	116	700	5.11	34.39	0.34	27.20	88	1.12
560	5.81	34.33	0.37	100							
701	5.14	34.39	0.34	88							

HORIZON; April 18, 1955; 0254 GCT; 29°31'N, 118°02'W; sounding, 2075 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 41°.

107.60

0	15.27	33.45	5.64	322	0	15.27	33.45	5.64	24.74	322	0.00
8	15.31	33.41	5.73	325	10	15.30	33.41	5.71	24.70	325	0.03
24	15.25	33.40	5.51	325	20	15.28	33.41	5.55	24.70	325	0.06
36	15.00	33.35	5.74	323	30	15.13	33.39	5.61	24.71	324	0.10
47	14.85	33.26	5.51	326	50	14.91	33.31	5.47	24.70	325	0.16
54	14.96	33.33	5.45	324	75	14.01	33.23	5.64	24.84	312	0.24
62	14.45	33.26	5.25	318	100	12.60	33.20	5.20	25.10	287	0.32
71	14.38	33.25	5.72	318	150	9.78	33.43	4.02	25.79	222	0.45
77	13.86	33.22	5.60	309	200	8.46	33.85	3.30	26.33	170	0.55
87	13.38	33.17	5.41	304	250	7.97	34.03	2.35	26.54	150	0.63
105	12.29	33.20	5.10	282	300	7.60	34.13	1.54	26.67	138	0.71
123	11.42	33.22a)	4.87	265	400	7.05	34.32	0.82	26.90	116	0.84
161	9.27	33.56	3.72	204	500	6.35	34.36	0.67	27.02	104	0.96
206	8.38	33.89	3.20	167							
286	7.65	34.11	1.64	140							
393	7.10	34.31	0.85	117							
512	6.23	34.36	0.64	103							

a) Alternate value, 33.15‰, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

107.70

HORIZON; April 17, 1955; 2130 GCT; 29°13'N, 118°41'W; sounding, 1750 fm; wind, 310°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

0	15.73	33.47	5.70	329	0	15.73	33.47	5.70	24.66	329	0.00
10	15.76	33.47	5.49	330	10	15.76	33.47	5.49	24.65	330	0.03
27	15.73	33.47	5.70	329	20	15.73	33.47	5.65	24.66	329	0.07
40	15.68	33.47	5.67	329	30	15.71	33.47	5.70	24.66	329	0.10
53	15.49	33.43	5.80	327	50	15.54	33.44	5.73	24.67	328	0.16
62	15.46	33.46	5.89	325	75	15.06	33.39	5.57	24.74	322	0.25
71	15.24	33.41	5.58	324	100	13.38	33.28	5.52	25.00	296	0.32
84	14.43	33.34	5.64	312	150	9.78	33.40	4.09	25.77	224	0.46
92	13.63	33.26	5.51	302	200	9.51	33.99	2.42	26.26	176	0.56
104	13.31	33.28	5.53	294	250	8.20	34.04	2.54	26.51	153	0.64
129	11.24	33.27	5.21	259	300	7.65	34.11	1.92	26.65	140	0.72
153	9.74	33.42	4.07	222	400	7.04	34.28	0.80	26.86	120	0.86
202	9.49	33.99	2.40	176	500	6.40	34.34	0.48	27.00	106	0.97
259	8.02	34.04	2.56	151	600	5.78	34.35	0.38	27.09	98	1.08
362	7.28	34.22	1.06	127							
486	6.47	34.34	0.50	107							
615	5.64	34.35	0.38	97							

107.80

HORIZON; April 17, 1955; 1525, 1618 GCT; 28°51'N, 119°23.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 39°, 25°.

0	15.62	33.51	5.84	324	0	15.62	33.51	5.84	24.71	324	0.00
10	15.67	33.46	5.17	329	10	15.67	33.46	5.17	24.66	329	0.03
24	15.65	33.45	4.97	329	20	15.66	33.45	5.00	24.66	329	0.07
36	15.65	33.50	5.33	325	30	15.65	33.47	5.18	24.68	327	0.10
48	15.52	33.46	-	325	50	15.50	33.46	5.34	24.70	325	0.16
56	15.47	33.47	5.37	324	75	15.03	33.42	5.49	24.77	319	0.24
62	15.37	33.46	5.48	323	100	13.88	33.25	5.75	24.88	308	0.32
75	15.03	33.42	5.49	319	150	10.72	33.55	3.52	25.72	229	0.46
83	14.73	33.33	5.62	319	200	8.96	33.75	3.24	26.17	185	0.56
94	14.21	33.26	5.78	314	250	8.27	33.90	2.65	26.39	164	0.65
115	12.81	33.25	5.40	287	300	7.79	34.06	1.88	26.59	146	0.73
137	11.26	33.47	3.64	243	400	7.16	34.26	0.70	26.84	122	0.87
180	9.37	33.68	3.44	197	500	6.30	34.31	0.42	26.99	107	0.99
232	8.46	-	-	-	600	5.72	34.35	0.36	27.10	97	1.10
321	7.65	-	-	-							
286	7.90	34.02	2.11	150							
400	7.16	34.26	0.70	122							
535	6.06	34.33	0.39	103							
676	5.35	34.40	0.36	89							

110.33

HORIZON; April 16, 1955; 0312 GCT; 29°50.5'N, 115°52'W; sounding, 45 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	14.35	33.39		307	0	14.35	33.39		24.88	307	0.00
10	14.37	33.41		306	10	14.37	33.41		24.90	306	0.03
15	14.31	33.37		308	20	14.09	33.35		24.94	302	0.06
19	14.10	33.36		304							
24	12.88	33.27		287							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; April 16, 1955; 0450 GCT; 29°46.5'N, 116°00'W; sounding, 700 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 35°.

110.35

0	15.63	33.37	5.94	335	0	15.63	33.37	5.94	24.60	335	0.00
9	15.69	33.42	5.92	332	10	15.68	33.41	5.88	24.62	332	0.03
26	15.65	33.40	5.87	333	20	15.68	33.41	5.87	24.62	333	0.07
36	14.64	33.34	6.02	317	30	15.40	33.38	5.92	24.66	329	0.10
48	13.50	33.29	5.98	297	50	13.27	33.29	5.93	25.04	293	0.16
56	12.73	33.29	5.74	283	75	11.05	33.25	4.95	25.43	256	0.23
63	12.10	33.22	5.70	277	100	9.98	33.46	4.00	25.78	223	0.29
74	11.12	33.24	5.01	258	150	9.48	33.85	2.68	26.16	186	0.39
82	10.62	33.30	4.55	245	200	9.47	34.33	1.37	26.55	150	0.48
93	10.20	33.39	4.23	232	250	9.19	34.39	1.07	26.63	142	0.55
116	9.58	33.67	3.32	201	300	8.66	34.39	0.81	26.72	133	0.62
138	9.51	33.81	2.72	190	400	7.51	34.37	0.53	26.88	118	0.75
194p	9.43	34.33	1.46	150	500	6.47	34.36	0.45	27.01	106	0.87
264p	9.06	34.40	0.96	139	600	5.73	34.40	0.33	27.14	94	0.98
376p	7.80	34.38	0.58	122							
491p	6.54	34.36	0.46	107							
639p	5.70	34.41	0.32	93							

HORIZON; April 16, 1955; 0734 GCT; 29°36.5'N, 116°19.5'W; sounding, 1400 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 35°.

110.40

0	15.88	33.42	6.03	336	0	15.88	33.42	6.03	24.58	336	0.00
8	15.90	33.38	6.02	339	10	15.91	33.38	6.06	24.55	339	0.03
26	15.93	33.41	6.10	338	20	15.92	33.40	6.08	24.56	338	0.07
45	15.68	33.40	5.57	334	30	15.89	33.41	6.05	24.57	337	0.10
56	15.51	33.46	5.64	326	50	15.60	33.42	5.60	24.64	331	0.17
64	15.01	33.67r	5.82	-	75	14.37	33.38	5.67	24.89	308	0.25
76	14.33	33.38	5.64	307	100	11.85	33.37	5.18	25.37	262	0.32
95	12.50	33.36	5.33	274	150	10.27	33.85	2.76	26.04	198	0.44
122	10.50	33.58	3.75	222	200	9.38	34.13	2.25	26.40	164	0.53
142	10.38	33.77	2.87	207	250	9.28	34.34	1.29	26.58	147	0.61
187	9.48	34.04	2.50	172	300	8.83	34.36	0.87	26.67	138	0.68
248	9.28	34.34	1.30	147	400	7.47	34.31	0.60	26.84	122	0.82
334	8.38	34.36	0.66	132	500	6.27	34.31	0.50	27.00	107	0.94
446	6.85	34.29	0.58	116	600	5.73	34.37	0.43	27.11	96	1.04
602	5.73	34.37	0.43	96	700	5.18	34.41	0.43	27.21	86	1.14
797	4.72	34.44	0.46	80	800	4.67	34.44	0.46	27.29	79	1.24
1081	3.82	34.64	0.62	55	1000	4.00	34.55	0.57	27.45	64	1.39

HORIZON; April 16, 1955; 1250 GCT; 29°15.5'N, 116°60'W; sounding, 2150 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

110.50

0	15.87	33.50	5.82	330	0	15.87	33.50	5.82	24.65	330	0.00
10	15.90	33.44	5.60	335	10	15.90	33.44	5.60	24.59	335	0.03
30	15.93	33.46	5.62	334	20	15.92	33.45	5.61	24.60	335	0.07
54	15.57	33.48	5.72	325	30	15.93	33.46	5.62	24.61	334	0.10
68	15.41	33.44	5.78	325	50	15.59	33.48	5.70	24.69	326	0.17
78	15.04	33.42	5.81	319	75	15.19	33.42	5.81	24.73	322	0.25
93	13.87	33.48	5.38	291	100	13.27	33.48	5.06	25.19	279	0.32
117	11.66	33.48	4.02	249	150	10.43	33.90	2.52	26.03	198	0.44
148	10.44	33.89	2.54	199	200	10.19	34.16	1.81	26.28	174	0.54
172	10.31	34.00	2.22	188	250	9.90	34.38	1.11	26.51	153	0.62
229	10.03	34.32	1.33	160	300	9.36	34.46	0.80	26.66	139	0.70
307	9.26	34.46	0.76	137	400	7.70	34.35	0.65	26.83	123	0.84
412	7.53	34.34	0.62	121	500	6.89	34.38	0.40	26.97	110	0.96
555	6.53	34.41	0.23	103	600	6.18	34.43	0.23	27.11	97	1.07
753	5.23	34.48	0.31	82	700	5.52	34.46	0.30	27.21	87	1.16
992	4.14	34.53	0.58	67	800	5.02	34.49	0.37	27.29	79	1.26
1325	3.20	34.61	0.90	52	1000	4.08	34.53	0.58	27.43	66	1.42

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

110.60

HORIZON; April 16, 1955; 1751 GCT; 28°56.5'N, 117°40'W; sounding, 2050 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 29°.

0	15.86	33.49	5.88	331	0	15.86	33.49	5.88	24.64	331	0.00
9	15.89	33.50	5.77	331	10	15.88	33.50	5.75	24.64	331	0.03
27	15.85	33.46	5.70	333	20	15.88	33.48	5.70	24.63	332	0.07
49	15.60	33.50	5.71	324	30	15.83	33.46	5.71	24.62	333	0.10
62	15.47	33.41	5.75	328	50	15.59	33.50	5.71	24.71	324	0.16
71	14.90	33.40	5.75	317	75	14.50	33.40	5.67	24.86	310	0.24
84	13.65	33.39	5.41	293	100	12.07	33.28	4.90	25.26	272	0.32
107	11.59	33.27	4.74	264	150	10.63	33.89	2.28	26.00	201	0.44
139	10.58	33.79	3.00	208	200	10.13	34.25	1.51	26.37	166	0.53
160	10.65	33.95	2.13	198	250	9.72	34.38	1.16	26.54	151	0.61
214	9.94	34.31	1.34	160	300	9.38	34.42	0.81	26.63	142	0.69
288	9.50	34.42	0.91	144	400	8.17	34.42	0.52	26.82	124	0.83
391	8.27	34.42	0.55	126	500	6.70	34.43	0.39	27.03	104	0.95
525	6.59	34.43	0.38	102	600	5.83	34.42	0.41	27.14	93	1.05
718	5.26	34.42	0.46	87	700	5.37	34.42	0.44	27.20	88	1.15
947	4.37	34.51	0.51	71	800	4.92	34.44	0.46	27.26	82	1.24
1267	3.44	34.57	0.82	57	1000	4.19	34.52	0.55	27.41	68	1.40

110.70

HORIZON; April 16, 1955; 2230 GCT; 28°36.5'N, 118°17.5'W; sounding, 2050 fm; wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 13°.

0	16.21	33.44	6.02	342	0	16.21	33.44	6.02	24.52	342	0.00
10	16.23	33.44	5.93	343	10	16.23	33.44	5.93	24.52	343	0.03
30	15.80	33.43	6.15	334	20	16.17	33.43	5.96	24.55	339	0.07
54	15.51	33.40	6.15	330	30	15.80	33.43	6.15	24.61	334	0.10
69	15.46	33.40	6.33	329	50	15.54	33.41	6.15	24.65	330	0.17
79	13.58	33.31	5.94	297	75	14.80	33.37	6.32	24.78	318	0.25
94	12.14	33.30	5.07	272	100	11.83	33.34	4.77	25.35	263	0.32
118	11.12	33.59	3.56	232	150	10.32	33.90	1.94	26.06	196	0.44
151	10.31	33.90	1.94	196	200	10.21	34.25	1.66	26.35	168	0.53
175	10.25	34.08	2.19	181	250	10.03	34.45	1.01	26.54	150	0.61
232	10.13	34.43	1.06	154	300	9.60	34.47	0.88	26.62	142	0.69
313	9.46	34.47	0.85	140	400	8.10	34.41	0.70	26.82	124	0.83
426	7.70	34.40	0.67	119	500	6.80	34.44	0.50	27.03	104	0.95
568	6.12	34.46	0.38	94	600	5.90	34.46	0.38	27.16	92	1.05
769	4.98	34.42	0.45	83	700	5.31	34.43	0.41	27.21	87	1.14
1009	4.13	34.54	0.63	66	800	4.86	34.43	0.47	27.26	82	1.24
1340	3.33	34.56	0.89	57	1000	4.17	34.53	0.62	27.42	66	1.40

110.80

HORIZON; April 17, 1955; 0334 GCT; 28°16'N, 118°56'W; sounding, 2250 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 19°.

0	16.12	33.56	a)	331	0	16.12	33.56		24.64	331	0.00
10	16.17	33.58		331	10	16.17	33.58		24.64	331	0.03
29	16.09	33.58		329	20	16.14	33.58		24.65	330	0.07
54	15.53	33.51		322	30	16.09	33.58		24.66	329	0.10
67	14.68	33.42		312	50	15.68	33.53		24.71	324	0.16
77	13.83	33.34		300	75	14.01	33.35		24.94	302	0.24
92	12.53	33.30		278	100	11.83	33.31		25.33	265	0.32
115	10.55	33.38		238	150	9.64	33.79		26.09	193	0.43
148	9.69	38.78		194	200	8.38	33.96		26.43	161	0.52
171	9.00	33.87		177	250	8.18	34.15		26.61	144	0.60
228	8.32	34.12		149	300	7.92	34.21		26.69	136	0.67
307	7.88	34.22		135	400	7.33	34.39		26.91	115	0.80
415	7.24	34.40		113	500	6.60	34.43		27.05	102	0.92
560	6.10	34.44		95	600	5.85	34.44		27.15	92	1.02
757	4.96	34.45		81	700	5.27	34.44		27.22	85	1.11
994	4.06	34.54		65	800	4.78	34.46		27.30	79	1.20
1333	3.25	34.61		43	1000	4.04	34.54		27.44	65	1.36

a) One oxygen sample missing; values are listed in order of increasing depth: 5.64, 5.64, 5.48, 5.64, 5.82, 5.76, 4.91, 4.24, 3.04, 3.84, 2.68, 1.12, 0.66, 0.33, 0.41, 0.74.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; April 17, 1955; 0836 GCT; 27°56'N, 119°35.5'W; sounding, 2050 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

110.90

0	16.01	33.57	5.45	328	0	16.01	33.57	5.45	24.67	328	0.00
10	16.06	-	5.62	-	10	16.06	33.57	5.62	24.66	329	0.03
29	16.06	33.57	5.27	329	20	16.06	33.57	5.46	24.66	329	0.07
53	15.83	33.55	5.16	326	30	16.05	33.57	5.21	24.66	329	0.10
66	15.34	33.45	5.59	323	50	15.89	33.56	5.16	24.68	327	0.16
75	13.60	33.39	5.21	292	75	13.60	33.39	5.21	25.05	292	0.24
89	11.49	33.30	4.52	260	100	10.87	33.40	4.16	25.58	242	0.31
111	10.36	33.53	3.82	224	150	9.67	33.86	2.62	26.14	188	0.42
142	9.62	33.78	2.96	193	200	9.43	34.15	1.99	26.40	164	0.51
165	9.79	34.01	2.24	179	250	8.86	34.25	1.62	26.58	146	0.58
219	9.19	34.20	1.87	155	300	8.35	34.33	1.17	26.72	134	0.66
297	8.38	-	-	-	400	7.51	34.41	0.46	26.90	116	0.79
402	7.51	34.41	0.45	116	500	6.52	34.38	0.38	27.02	105	0.90
546	6.04	34.37	0.36	100	600	5.78	34.38	0.33	27.12	96	1.01
741	5.02	34.47	0.33	81	700	5.25	34.45	0.33	27.23	84	1.10
977	4.08	34.52	0.58	67	800	4.80	34.49	0.36	27.32	77	1.19
1304	3.30	34.54	0.89	58	1000	4.05	34.52	0.59	27.42	66	1.35

HORIZON; April 15, 1955; 2133 GCT; 29°22.5'N, 115°17.5'W; sounding, 15 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.

113.30

0	15.23	33.58	5.56	311	0	15.23	33.58	5.56	24.85	311	0.00
5	14.47	33.56	5.56	297	10	12.88	33.54	4.02	25.31	267	0.03
10	12.88	33.54	4.02	267	20	11.87	33.59	2.25	25.55	244	0.06
15	11.96	33.58	2.43	247							
19	11.87	33.58	2.27	246							
25	11.86	33.66	2.03	240							

HORIZON; April 15, 1955; 1848 GCT; 29°13'N, 115°36.5'W; sounding, 550 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 09°.

113.35

0	13.00	33.53	5.80	270	0	13.00	33.53	5.80	25.28	270	0.00
10	12.66	33.49	5.61	267	10	12.66	33.49	5.61	25.31	267	0.03
30	11.99	33.58	4.88	248	20	12.39	33.50	5.39	25.37	261	0.05
45	10.21	33.45	4.17	225	30	11.99	33.58	4.88	25.51	248	0.08
60	9.94	33.52	3.86	218	50	9.99	33.46	3.95	25.78	222	0.13
70	9.89	33.63	3.35	209	75	9.92	33.70	3.05	25.98	204	0.18
80	9.94	33.78	2.82	199	100	9.77	33.92	2.73	26.17	185	0.23
95	9.80	33.87	2.75	190	150	9.86	34.29	1.30	26.44	160	0.32
105	9.74	34.00	2.13	179	200	9.27	34.33	1.07	26.58	147	0.39
120	9.74	34.11	2.00	171	250	8.86	34.36	0.60	26.67	138	0.46
150	9.86	34.29	1.30	160	300	8.86	34.47	0.43	26.74	131	0.53
180	9.60	34.34	1.11	152	400	7.68	34.44	0.34	26.90	116	0.66
237	8.86	34.33	0.91	141	500	6.60	34.41	0.34	27.03	104	0.78
306	8.85	34.47	0.40	131	600	5.97	34.41	0.33	27.12	96	0.88
423	7.40	34.43	0.34	113	700	(5.45)	(34.43)	(0.29)	(27.19)	(88)	(0.98)
561	6.18	34.40	0.34	99							
699	5.43	34.43	0.29	88							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

113.40

HORIZON; April 15, 1955; 1542 GCT; 29°03.5'N, 115°55.5'W; sounding, 1000 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 20°.

0	14.54	33.47	6.02	305	0	14.54	33.47	6.02	24.91	305	0.00
10	14.59	33.45	6.07	308	10	14.59	33.45	6.07	24.89	308	0.03
28	12.60	33.44	5.48	270	20	14.54	33.45	6.07	24.90	307	0.06
43	11.08	33.50	4.09	238	30	12.32	33.45	5.28	25.34	265	0.09
56	10.25	33.52	3.55	223	50	10.62	33.51	3.78	25.70	230	0.14
66	10.12	33.59	3.20	215	75	9.48	33.76	3.58	26.09	193	0.19
75	9.48	33.76	3.58	193	100	9.52	33.94	2.45	26.23	180	0.24
88	9.54	33.88	2.78	185	150	9.33	34.13	1.76	26.41	163	0.33
97	9.47	33.89	2.73	183	200	9.10	34.33	1.06	26.60	144	0.40
110	9.72	34.09	1.95	172	250	8.52	34.35	0.92	26.71	134	0.48
138	9.31	34.07	2.06	167	300	7.90	34.35	0.84	26.80	126	0.54
165	9.34	34.19	1.67	159	400	7.06	34.42	0.49	26.98	109	0.66
221	8.90	34.36	0.98	139	500	6.44	34.39	0.36	27.04	103	0.77
284	8.09	34.34	0.90	129	600	5.87	34.41	0.30	27.13	95	0.88
394	7.10	34.42	0.51	109							
525	6.30	34.39	0.32	101							
660	5.56	34.44	0.29	88							

113.45

HORIZON; April 15, 1955; 1203 GCT; 28°51'N, 116°17'W; sounding, 1200 fm; wind, 310°, force 5; weather, partly cloudy; sea, rough; wire angle, 18°.

0	15.58	33.33	5.90	337	0	15.58	33.33	5.90	24.58	337	0.00
10	15.61	33.36	5.85	335	10	15.61	33.36	5.85	24.60	335	0.03
29	15.63	33.34	5.62	337	20	15.63	33.35	5.70	24.58	336	0.07
44	15.18	33.34	5.70	328	30	15.61	33.34	5.63	24.58	337	0.10
58	13.63	33.23	5.82	305	50	14.58	33.31	5.78	24.79	317	0.17
67	12.36	33.20	5.52	283	75	11.70	33.21	5.07	25.28	270	0.24
76	11.62	33.22	5.05	268	100	10.38	33.36	4.10	25.63	236	0.30
90	10.86	33.34	4.63	246	150	9.48	33.88	2.83	26.18	184	0.41
99	10.41	33.36	4.15	237	200	8.33	34.04	2.26	26.49	155	0.50
112	9.72	33.41	3.99	222	250	8.75	34.26	1.29	26.60	145	0.57
140	9.69	33.80	3.00	193	300	8.63	34.36	0.81	26.70	135	0.64
166	8.94	33.96	2.64	169	400	7.26	34.34	0.54	26.89	117	0.78
220	8.74	34.16	1.79	152	500	6.79	34.32	0.50	26.96	110	0.89
284	8.75	34.36	0.90	137	600	5.92	34.38	0.43	27.10	97	1.00
393	7.34	34.35	0.56	118							
526	6.42	34.32	0.50	108							
659	5.46	34.51	0.38	83							

113.50

HORIZON; April 15, 1955; 0849 GCT; 28°42'N, 116°37.5'W; sounding, 1950 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 08°.

0	15.78	33.43	5.11	334	0	15.78	33.43	5.11	24.61	334	0.00
10	15.84	33.37	5.36	340	10	15.84	33.37	5.36	24.55	340	0.03
30	15.50	33.35	5.27	334	20	15.73	33.36	5.33	24.57	338	0.07
45	15.06	33.34	5.41	325	30	15.50	33.35	5.27	24.61	334	0.10
60	14.60	33.30	5.67	319	50	14.91	33.33	5.50	24.72	323	0.17
70	14.11	33.29	5.49	309	75	13.58	33.24	5.47	24.94	303	0.25
80	13.02	33.18	5.51	297	100	11.27	33.17	5.00	25.33	265	0.32
94	11.81	33.19	4.96	274	150	10.07	33.69	3.00	25.94	208	0.44
104	11.01	33.17	5.02	262	200	9.68	34.05	2.20	26.28	175	0.52
119	10.62	33.24	4.69	249	250	9.84	34.34	1.09	26.48	156	0.62
148	10.10	33.67	3.08	209	300	8.62	34.25	1.31	26.61	144	0.70
177	9.91	33.92	2.51	188	400	7.42	34.23	0.73	26.77	128	0.84
234	9.96	34.32	1.28	159	500	6.49	34.28	0.44	26.95	112	0.96
300	8.62	34.25	1.31	144	600	5.87	34.36	0.34	27.08	99	1.08
415	7.25	34.23	0.65	126	700	(5.38)	(34.42)	(0.28)	(27.20)	(88)	(1.18)
552	6.14	34.32	0.38	105							
692	5.39	34.42	0.28	88							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; April 15, 1955; 0540 GCT; 28°32'N, 116°57'W; sounding, 1950 fm; wind, 330°, force 5, weather, partly cloudy; sea, rough; wire angle, 30°.

113.55

0	15.77	33.38	5.85	337	0	15.77	33.38	5.85	24.58	337	0.00
9	15.82	33.39	5.63	338	10	15.82	33.39	5.60	24.57	337	0.03
27	15.80	33.40	5.45	336	20	15.82	33.40	5.50	24.58	337	0.07
40	15.65	33.39	5.83	334	30	15.78	33.40	5.45	24.59	336	0.10
53	15.58	33.50	5.49	324	50	15.60	33.49	5.80	24.70	325	0.17
62	14.58	33.39	5.69	312	75	13.08	33.28	5.18	25.08	289	0.24
70	13.60	33.30	5.24	299	100	10.87	33.38	4.13	25.57	243	0.31
82	12.27	33.29	5.14	275	150	9.49	33.80	2.80	26.12	190	0.42
90	12.02	33.33	4.56	268	200	10.13	34.29	1.40	26.40	164	0.51
102	10.78	33.39	4.10	241	250	9.39	34.33	1.32	26.55	150	0.59
125	10.46	33.74	2.95	210	300	8.63	34.30	1.13	26.65	140	0.66
147	9.47	33.78	3.22	191	400	7.60	34.39	0.60	26.88	118	0.80
193	10.18	34.28	1.42	165	500	7.04	34.42	0.33	26.98	108	0.92
246	9.46	34.33	1.34	150	600	6.53	34.40	0.33	27.03	104	1.03
341	8.06	34.29	0.90	132	700	(6.02)	(34.38)	0.34)	(27.08)	(99)	(1.14)
460	7.21	34.42	0.33	111							
693	6.04	34.38	0.33	99							

HORIZON; April 15, 1955; 0233 GCT; 28°23'N, 117°17'W; sounding, 2050 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

113.60

0	16.04	33.46	5.67	337	0	16.04	33.46	5.67	24.58	337	0.00
9	16.06	33.40	4.22	342	10	16.06	33.40	4.27	24.53	341	0.03
27	16.01	33.42	5.29	339	20	16.05	33.41	4.75	24.54	340	0.07
40	15.70	33.40	5.42	334	30	15.98	33.42	5.32	24.56	338	0.10
53	15.60	33.40	5.29	332	50	15.61	33.40	5.30	24.62	332	0.17
62	15.19	33.42	5.35	322	75	13.35	33.27	5.28	25.01	295	0.25
70	13.71	33.29	5.32	301	100	11.58	33.29	4.60	25.36	262	0.32
84	12.74	33.26	5.14	285	150	9.88	33.82	2.66	26.07	195	0.43
92	12.22	33.27	5.01	275	200	10.40	34.27	1.25	26.33	170	0.52
106	11.16	33.30	4.28	254	250	10.08	34.45	0.80	26.53	151	0.61
128	10.46	33.61	3.12	220	300	9.58	34.50	0.49	26.66	139	0.68
150	9.88	33.82	2.66	195	400	8.24	34.47	0.27	26.84	122	0.82
192	10.42	34.24	1.53	173	500	6.99	34.42	0.23	26.99	108	0.94
242	10.14	34.44	0.86	153							
330	9.20	34.51	0.35	133							
435	7.80	34.45	0.26	117							
554	6.28	34.41	0.20	100							

HORIZON; April 14, 1955; 2047 GCT; 28°00'N, 117°54.5'W; sounding, 1800 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

113.70

0	16.18	33.46	5.81	340	0	16.18	33.46	5.81	24.54	340	0.00
9	16.16	33.42	5.25	342	10	16.16	33.42	5.25	24.52	342	0.03
27	15.82	33.39	5.98	338	20	15.98	33.40	5.72	24.55	340	0.07
41	15.75	33.40	5.51	335	30	15.81	33.39	5.98	24.57	337	0.10
54	14.78	33.35	5.49	318	50	15.26	33.38	5.49	24.69	326	0.17
62	14.19	33.29	5.62	311	75	13.40	33.26	5.69	24.99	298	0.25
71	13.77	33.27	5.80	305	100	10.59	33.30	4.40	25.55	244	0.32
84	12.20	33.25	4.32	276	150	10.70	34.12	1.68	26.16	186	0.42
92	11.30	33.23	4.72	262	200	10.34	34.45	0.86	26.49	155	0.51
104	10.42	33.36	4.28	238	250	9.91	34.49	0.58	26.58	146	0.59
129	10.56	33.84	2.17	204	300	9.21	34.43	0.53	26.66	139	0.66
153	10.70	34.15	1.65	184	400	7.42	34.33	0.57	26.86	120	0.79
203	10.30	34.45	0.82	155	500	(6.84)	(34.35)	(0.42)	(26.95)	(112)	(0.92)
262	9.81	34.49	0.52	144	600	(6.42)	(34.36)	(0.36)	(27.01)	(106)	(1.03)
364	7.94	34.33	0.62	128	700	(5.88)	(34.38)	(0.28)	(27.10)	(97)	(1.14)
488	6.89	34.35	0.43	112							
717	5.76	34.39	0.27	95							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

117.26

HORIZON; April 13, 1955; 1405 GCT; 28°55.5'N, 114°41.5'W; sounding, 40 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 02°.

0	14.56	33.57	5.77	298	0	14.56	33.57	5.77	24.99	298	0.00
10	14.51	33.57	5.64	297	10	14.51	33.57	5.64	24.99	297	0.03
15	14.07	33.55	5.38	290	20	13.28	33.58	3.56	25.26	272	0.06
20	13.28	33.58	3.56	272	30	10.72	33.58	2.92	25.74	226	0.08
25	11.12	33.59	2.84	233	50	10.68	33.80	2.29	25.92	209	0.13
30	10.72	33.58	2.92	226							
35	10.76	33.75	2.47	214							
40	10.74	33.79	2.22	211							
50	10.68	33.80	2.29	209							
60	10.61	33.94	1.87	198							

117.30

HORIZON; April 13, 1955; 1618 GCT; 28°46'N, 114°57'W; sounding, 55 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 03°.

0	15.05	33.55	5.82	310	0	15.05	33.55	5.82	24.86	310	0.00
15	12.96	33.55	5.23	268	10	14.60	33.56	5.75	24.97	299	0.03
25	13.62r	33.57	5.37	-	20	12.82	33.56	5.32	25.34	265	0.06
35	11.70	33.64	2.98	239	30	12.60	33.62	5.35	25.43	256	0.08
45	11.32	33.78	1.42	222	50	11.28	33.79	1.41	25.80	220	0.13
50	11.28	33.79	1.41	220	75	10.45	33.95	1.76	26.07	195	0.18
55	11.24	33.79	1.26	220							
60	11.04	33.85	1.50	212							
65	11.07	33.94	1.05	206							
70	10.76	33.91	1.57	202							
80	10.20	34.03	1.89	184							

117.35

HORIZON; April 13, 1955; 1844 GCT; 28°40'N, 115°16'W; sounding, 110 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	15.00	33.37	6.02	322	0	15.00	33.37	6.02	24.74	322	0.00
10	14.61	33.30	6.02	319	10	14.61	33.30	6.02	24.77	319	0.03
15	14.56	33.32	6.10	316	20	14.54	33.36	6.26	24.83	313	0.06
20	14.54	33.36	6.26	313	30	14.40	33.34	5.77	24.84	312	0.10
25	14.48	33.34	5.94	313	50	13.87	33.34	6.16	24.96	301	0.16
30	14.40	33.34	5.77	312	75	11.13	33.36	4.23	25.49	250	0.23
35	14.39	33.39	6.07	308	100	9.72	33.68	3.18	25.99	202	0.28
44	14.15	33.34	6.42	306	150	9.99	34.29	1.41	26.42	162	0.37
54	13.36	33.35	5.33	290							
64	12.18	33.28	4.44	274							
78	11.06	33.38	4.20	247							
98	9.68	33.65	3.32	204							
117	10.14	34.13	1.74	176							
133	10.12	34.27	1.55	165							
150	9.99	34.29	1.41	162							

117.40

HORIZON; April 13, 1955; 2155 GCT; 28°26'N, 115°35'W; sounding, 565 fm; wind, 240°, force 7; weather, clear; sea, moderate; wire angle, 13°.

0	15.97	33.40	6.22	340	0	15.97	33.40	6.22	24.55	340	0.00
10	15.18	33.38	6.15	325	10	15.18	33.38	6.15	24.71	325	0.03
15	15.11	33.36	6.04	325	20	15.00	33.37	6.29	24.74	322	0.07
20	15.00	33.37	6.29	322	30	14.79	33.36	6.19	24.78	318	0.10
25	14.82	33.38	5.88	317	50	13.22	33.29	6.30	25.04	292	0.16
30	14.79	33.36	6.19	318	75	11.31	33.29	4.45	25.41	258	0.23
40	14.12	33.33	6.08	306	100	9.92	33.69	3.48	25.96	205	0.29
50	13.22	33.29	6.30	292	150	9.99	34.27	1.42	26.40	163	0.38
65	12.02	33.25	5.07	273	200	9.77	34.43	0.83	26.56	148	0.46
79	11.04	33.33	4.28	250	250	9.52	34.50	0.73	26.67	138	0.53
99	9.94	33.68	3.65	206	300	9.01	34.53	0.53	26.77	128	0.60
123	10.00	34.05	2.64	180	400	8.06	34.48	0.31	26.89	118	0.73
163	9.98	34.34	1.29	158							
202	9.75	34.43	0.81	148							
251	9.48	34.50	0.73	138							
325	8.74	34.53	0.39	124							
404	8.00	34.48	0.30	117							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; April 14, 1955; 0105 GCT; 28°17.5'N, 115°57'W; sounding, 2050 fm; wind, 320°, force 5; weather, clear; sea, moderate; wire angle, 28°. 117.45

0	15.95	33.38	4.81	341	0	15.95	33.38	4.81	24.54	341	0.00
9	15.59	33.38	5.82	333	10	15.58	33.38	5.82	24.62	333	0.03
28	15.45	33.40	5.43	329	20	15.50	33.40	5.60	24.65	330	0.07
42	15.36	33.39	5.77	328	30	15.45	33.40	5.45	24.67	328	0.10
51	14.14	33.31	6.05	309	50	14.28	33.32	6.03	24.85	311	0.16
60	13.00	33.26	5.74	290	75	11.52	33.25	5.22	25.34	265	0.26
70	12.24	33.25	5.37	277	100	10.73	33.58	3.42	25.73	227	0.30
78	11.16	33.25	5.14	258	150	10.13	34.05	2.02	26.20	182	0.40
92	10.60	33.40	4.13	237	200	10.10	34.31	1.10	26.42	162	0.49
101	10.74	33.58	3.40	227	250	9.70	34.37	0.87	26.54	150	0.57
123	10.70	33.90	2.25	202	300	9.07	34.40	0.63	26.66	139	0.64
148	10.14	34.04	2.07	183	400	7.97	34.42	0.38	26.84	121	0.78
196	10.10	34.31	1.15	162	500	7.06	34.42	0.32	26.98	108	0.90
253	9.64	34.38	0.83	149	600	6.14	34.38	0.32	27.07	100	1.01
355	8.38	34.41	0.44	128							
473	7.29	34.43	0.32	111							
606	6.10	34.38	0.32	100							

HORIZON; April 14, 1955; 0445 GCT; 28°08.5'N, 116°16.5'W; sounding, 2325 fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 10°. 117.50

0	15.81	33.40	6.05	336	0	15.81	33.40	6.05	24.58	336	0.00
10	15.86	33.44	6.14	334	10	15.86	33.40	6.14	24.60	334	0.03
30	14.68	33.30	6.61	320	20	15.60	33.41	6.27	24.64	331	0.07
45	13.42	33.18	6.11	304	30	14.68	33.30	6.61	24.76	320	0.10
59	12.34	33.18	6.37	284	50	13.05	33.17	6.18	24.99	298	0.16
69	11.83	33.36	4.39	261	75	11.68	33.38	4.40	25.42	257	0.23
79	11.48	33.40	4.42	253	100	10.40	33.74	2.99	25.92	209	0.29
93	10.53	33.58	3.94	223	150	10.67	34.26	1.40	26.28	175	0.39
103	10.75	33.86	2.33	206	200	10.48	34.43	0.98	26.45	159	0.47
118	11.18	34.09	1.67	197	250	10.12	34.50	0.64	26.56	148	0.55
146	10.64	34.22	1.49	178	300	9.59	34.54	0.47	26.69	136	0.62
175	10.60	34.39	1.09	165	400	8.47	34.50	0.30	26.83	123	0.76
235	10.23	34.48	0.69	152	500	7.38	34.46	0.28	26.97	110	0.88
301	9.58	34.54	0.46	136	600	6.36	34.46	0.31	27.10	97	0.99
417	8.29	34.49	0.27	121	700	(5.43)	(34.47)	(0.31)	(27.23)	(85)	(1.09)
554	6.78	34.46	0.30	102							
693	5.52	34.47	0.31	86							

HORIZON; April 14, 1955; 0738 GCT; 27°57.5'N, 116°34.5'W; sounding, 1900 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 15°. 117.55

0	15.65	33.46	5.71	328	0	15.65	33.46	5.71	24.67	328	0.00
10	15.68	33.43	6.28	332	10	15.68	33.43	6.28	24.63	332	0.03
29	14.01	33.48	6.44	294	20	15.28	33.44	6.41	24.73	322	0.07
44	12.10	33.58	3.98	250	30	13.90	33.48	6.39	25.06	291	0.10
59	10.98	33.69	3.12	222	50	11.60	33.63	3.39	25.62	238	0.15
68	10.61	33.67	3.32	218	75	10.52	33.74	2.76	25.91	210	0.21
78	10.47	33.76	2.66	209	100	9.93	33.93	2.32	26.16	187	0.26
93	10.02	33.89	2.47	192	150	10.18	34.28		26.38	165	0.34
103	9.89	33.95	2.24	185	200	10.06	34.49		26.56	148	0.42
117	10.23	34.14	1.71	177							
146	10.16	34.26	1.10u	167							
174	10.20	34.43	1.25u	155							
231	9.80	34.53	0.51	141							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

117.60

HORIZON; April 14, 1955; 1059 GCT; 27°46'N, 116°56.5'W; sounding, 1800 fm; wind, 280°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	16.03	33.53	5.77	332	0	16.03	33.53	5.77	24.63	332	0.00
10	16.08	33.54	5.87	332	10	16.08	33.54	5.87	24.63	332	0.03
29	15.74	33.53	5.61	325	20	16.02	33.54	5.86	24.64	331	0.07
43	13.76	33.40	5.93	295	30	15.58	33.52	5.60	24.73	322	0.10
53	12.97	33.34	5.32	284	50	13.08	33.35	5.43	25.11	286	0.16
62	12.58	33.40	4.69	272	75	11.13	33.66	3.22	25.74	227	0.22
72	11.39	33.60	3.43	236	100	10.39	33.84	2.75	26.00	202	0.28
76	11.03	33.68	3.14	224	150	10.21	34.22	1.60	26.32	171	0.37
95	10.41	33.79	2.72	206	200	9.73	34.36	1.19	26.52	152	0.45
104	10.38	33.87	2.76	199	250	9.19	34.41	0.81	26.65	140	0.53
127	10.54	34.10	2.21	185	300	8.58	34.44	0.60	26.77	129	0.60
155	10.18	34.23	1.55	169	400	7.36	34.44	0.40	26.95	112	0.72
205	9.66	34.37	1.12	150	500	6.20	34.42	0.35	27.09	98	0.83
265	9.00	34.42	0.72	136	600	5.60	34.44	0.31	27.18	90	0.93
372	7.67	34.44	0.43	116							
495	6.26	34.42	0.36	99							
625	5.50	34.44	0.30	88							

117.70

HORIZON; April 14, 1955; 1507, 1525 GCT; 27°28'N, 117°31'W; sounding, 2200 fm; wind 330°, force 4; weather, cloudy; sea, rough; wire angle, 35°, 25°.

0	15.94	33.53	6.01	330	0	15.94	33.53	6.01	24.66	330	0.00
9	15.98	33.54	5.81	330	10	15.98	33.53	5.79	24.65	330	0.03
26	15.69	33.48	5.74	328	20	15.80	33.50	5.75	24.66	329	0.07
38	14.44	33.40	6.10	308	30	15.62	33.46	5.76	24.68	328	0.10
					50	13.91	33.44	5.82	25.03	294	0.16
51	13.85	33.44	5.80	293	75	12.72	33.41	4.98	25.24	274	0.23
60	13.32	33.31	5.72	293	100	10.72	33.80	2.73	25.91	210	0.29
69	12.66	33.32	5.35	280	150	10.43	34.20	1.70	26.27	176	0.39
78	12.79	33.48	4.64	270	200	9.54	34.25	1.48	26.46	158	0.48
91	10.97	33.66	3.54	224	250	9.53	34.47	0.68	26.64	141	0.55
100	10.72	33.80	2.73	210	300	8.99	34.44	0.65	26.71	134	0.62
123	10.86	34.07	1.86	193	400	7.40	34.38	0.61	26.90	116	0.75
149	10.44	34.20	1.70	176	500	6.51	34.42	0.38	27.05	102	0.87
198	9.54	34.24	1.50	158	600	5.79	34.39	0.32	27.12	95	0.97
257	9.50	34.48	0.64	140							
361	7.92	34.34	0.68	126							
486	6.61	34.42	0.40	103							
619	5.64	34.39	0.32	94							

120.25

HORIZON; April 13, 1955; 0929 GCT; 28°23'N, 114°14'W; sounding, 40 fm; wind, 270°, force 3; weather, clear; sea, slight; wire angle, 16°.

0	14.83	33.58	6.00	303	0	14.83	33.58	6.00	24.93	303	0.00
10	14.88	33.58	5.98	304	10	14.88	33.58	5.98	24.92	304	0.03
15	14.85	33.58	6.38	303	20	14.72	33.58	6.14	24.96	300	0.06
20	14.72	33.58	6.14	300	30	13.94	33.54	5.58	25.10	288	0.09
25	14.29	33.53	5.61	296	50	11.40	33.77	1.46	25.77	224	0.14
30	13.94	33.54	5.58	288							
35	12.45	33.54	3.83	260							
40	11.86	33.61	2.58	244							
49	11.42	33.76	1.53	225							
59	11.24	33.90	0.84	212							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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HORIZON; April 13, 1955; 0641 GCT; 28°14'N, 114°34'W; sounding, 50 fm; wind, 340°, force 5; weather, clear; sea, slight; wire angle, 08°.

120.30

0	15.26	33.55	6.06	314	0	15.26	33.55	6.06	24.82	314	0.00
10	15.30	33.56	6.01	314	10	15.30	33.56	6.01	24.82	314	0.03
15	15.32	33.56	5.90	315	20	15.28	33.55	6.28	24.81	315	0.06
20	15.28	33.55	6.28	315	30	15.20	33.53	6.64	24.82	314	0.09
25	15.29	33.55	5.86	315	50	12.38	33.53	3.81	25.39	259	0.15
30	15.20	33.53	5.64	314							
35	14.06	33.54	5.48	291							
40	13.35	33.48	4.98	281							
50	12.38	33.53	3.81	259							
60	11.38	33.68	2.43	230							

HORIZON; April 13, 1955; 0355 GCT; 28°02'N, 114°52'W; sounding 45 fm; wind, 340°, force 6; weather, clear; sea, moderate; wire angle, 10°.

120.35

0	15.17	33.54	5.61	312	0	15.17	33.54	5.61	24.83	312	0.00
10	15.16	33.54	5.95	312	10	15.16	33.54	5.95	24.83	312	0.03
15	14.97	33.58	5.77	305	20	14.80	33.57	5.93	24.93	303	0.06
20	14.80	33.57	5.93	303	30	14.62	33.57	5.86	24.97	300	0.09
25	14.70	33.54	5.69	303	50	11.59	33.48	3.78	25.51	248	0.15
30	14.62	33.57	5.86	300							
35	14.55	33.56	5.54	299							
40	12.64	33.55	4.51	263							
50	11.59	33.48	3.78	248							
60	11.21	33.68	2.79	227							

HORIZON; April 12, 1955; 1924 GCT; 27°57.5'N, 115°15.5'W; sounding, 30 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 05°.

120.40

0	15.93	33.65	5.53	320	0	15.93	33.65	5.53	24.75	320	0.00
5	15.72	33.56	5.31	323	10	15.45	33.53	5.31	24.76	320	0.03
10	15.45	33.53	5.31	320	20	13.83	33.57	4.79	25.14	284	0.06
15	15.38	33.53	5.53	318	30	11.88	33.82	3.06	25.72	228	0.09
20	13.83	33.57	4.79	284							
25	12.75	33.69	4.12	254							
30	11.88	33.82	3.06	228							
40	10.72	34.22	1.96	179							

HORIZON; April 12, 1955; 1635 GCT; 27°42.5'N, 115°33.5'W; sounding, 1000 fm; wind, 040°, force 5; weather, clear; sea, very rough; wire angle, 18°.

120.45

0	15.06	33.57	6.09	308	0	15.06	33.57	6.09	24.88	308	0.00
10	15.11	33.56	5.74	310	10	15.11	33.56	5.74	24.86	310	0.03
29	15.00	33.51	5.64	312	20	15.08	33.53	5.67	24.85	311	0.06
43	12.91	33.34	5.40	282	30	14.98	33.50	5.62	24.84	312	0.09
58	12.41	33.66	3.89	250	50	12.67	33.49	4.57	25.32	267	0.15
67	11.20	33.60	3.54	233	75	10.90	33.80	2.77	25.88	213	0.21
76	10.86	33.82	2.71	211	100	10.40	33.99	2.38	26.09	193	0.26
89	10.47	33.89	2.43	199	150	10.55	34.39	1.04	26.40	163	0.35
99	10.55	33.99	2.40	193	200	10.17	34.49	0.63	26.54	150	0.43
112	10.40	34.06	1.95	185	250	9.47	34.49	0.51	26.66	139	0.51
140	10.55	34.33	1.28	168	300	8.89	34.50	0.45	26.77	129	0.58
166	10.58	34.49	0.83	156	400	7.99	34.50	0.37	26.90	116	0.70
220	9.88	34.48	0.58	146	500	7.13	34.46	0.25	26.99	107	0.82
284	9.06	34.50	0.46	131	600	6.32	34.45	0.23	27.10	97	0.92
395	8.05	34.50	0.39	117							
528	6.90	34.45	0.22	104							
657	5.88	34.46	0.24	91							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

120.50

HORIZON; April 12, 1955; 1414 GCT; 27°34.5'N, 115°39'W; sounding, 2550 fm; wind, 330°, force 6; weather, partly cloudy; sea, very rough; wire angle, 27°.

0	15.79	33.51	5.70	328	0	15.79	33.51	5.70	24.67	328	0.00
10	15.80	33.49	5.78	330	10	15.80	33.49	5.78	24.65	330	0.03
28	15.79	33.48	6.16	330	20	15.80	33.49	6.00	24.65	330	0.07
41	14.28	33.44	6.21	302	30	15.78	33.48	6.18	24.64	330	0.10
48p	13.10	33.43	5.67	279	50	12.91	33.45	5.43	25.24	274	0.16
55	12.30	33.54	4.32	257	75	11.42	33.57	3.59	25.61	239	0.22
64	11.65	33.58	3.61	242	100	10.47	33.75	2.79	25.93	209	0.28
73	11.50	33.57	3.60	240	150	10.05	34.14	1.74	26.30	174	0.38
86	10.76	33.70	2.85	218	200	9.24	34.26	1.50	26.52	152	0.46
95	10.51	33.74	2.81	211	250	9.38	34.45	0.79	26.65	140	0.53
133p	10.20	34.04	1.92	184	300	8.78	34.45	0.52	26.75	131	0.60
184p	9.58	34.25	1.52	158	400	7.64	34.44	0.30	26.91	116	0.73
270p	9.15	34.45	0.73	137	500	(6.81)	(34.43)		(27.01)	(105)	(0.85)
372p	7.95	34.44	0.30	120							
479p	7.00	34.43	0.30	107							

120.55

HORIZON; April 12, 1955; 1029 GCT; 27°26'N, 116°01'W; sounding, 2300 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 35°.

0	15.82	33.53	5.57	327	0	15.82	33.53	5.57	24.68	327	0.00
9	15.82	33.53	5.51	327	10	15.80	33.53	5.51	24.68	327	0.03
26	15.47	33.50	5.61	323	20	15.65	33.51	5.55	24.70	325	0.06
46	14.06	33.53	5.51	291	30	15.27	33.50	5.63	24.78	317	0.10
58	13.16	33.45	4.80	279	50	13.78	33.51	5.35	25.11	286	0.16
78	11.74	33.68	3.56	236	75	12.00	33.62	3.78	25.54	246	0.22
96	10.84	33.76	2.68	215	100	10.70	33.79	2.59	25.91	210	0.28
121	10.24	33.95	2.31	191	150	10.41	34.19	1.19	26.27	176	0.38
139	10.45	34.11	1.75	183	200	9.80	34.41	0.98	26.54	150	0.46
180	10.18	34.39	0.98	157	250	8.99	34.42	0.85	26.69	136	0.54
238	9.10	34.42	0.94	138	300	8.68	34.45	0.50	26.76	130	0.60
321	8.58	34.45	0.41	128	400	7.72	34.45	0.28	26.91	115	0.73
429	7.36	34.45	0.25	111	500	6.71	34.44	0.22	27.04	103	0.84
583	6.03	34.43	0.20	95	600	5.98	34.43	0.20	27.13	94	0.95
780	5.02	34.51	0.27	78	700	5.39	34.47	0.23	27.24	84	1.04
1067	3.90	34.52	0.54	65	800	4.99	34.52	0.29	27.32	77	1.13
					1000	4.20	34.52	0.48	27.41	68	1.29

120.60

HORIZON; April 12, 1955; 0644 GCT; 27°16.5'N, 116°27'W; sounding, 2000 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 25°.

0	15.91	33.47	6.54	333	0	15.91	33.47	6.54	24.61	333	0.00
10	15.91	33.47	5.53	333	10	15.91	33.47	5.53	24.61	333	0.03
28	15.70	33.51	5.59	326	20	15.84	33.50	5.56	24.65	330	0.07
51	13.57	33.43	6.84u	289	30	15.63	33.51	5.59	24.71	324	0.10
64	11.66	33.30	4.66	263	50	13.65	33.44	5.33	25.07	290	0.16
74	11.04	33.49	4.36	238	75	11.03	33.53	4.35	25.65	235	0.23
87	11.00	33.73	3.40	220	100	10.69	33.78	2.97	25.90	211	0.28
110	10.45	33.81	2.74	205	150	9.90	34.14	2.09	26.32	172	0.38
142	10.10	34.12	2.14	176	200	9.81	34.37	1.33	26.51	153	0.46
163	9.60	34.15	2.02	166	250	9.40	34.45	0.82	26.64	141	0.54
217	9.89	34.47	0.94	147	300	8.46	34.40	0.75	26.75	130	0.61
293	8.58	34.40	0.77	131	400	7.68	34.50	0.46	26.95	111	0.73
396	7.72	34.50	0.48	112	500	6.79	34.46	0.36	27.04	102	0.84
535	6.49	34.45	0.36	99	600	6.08	34.46	(0.36)	27.14	94	0.95
728	5.20	34.52	-	79	700	5.39	34.51	(0.37)	27.26	82	1.04
965	4.18	34.55	0.52	65	800	4.80	34.53	(0.42)	27.35	73	1.12
1292	3.27	34.62	0.78	52	1000	4.02	34.55	0.58	27.45	64	1.28

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{10}^{-5}	Z	T	S	O ₂	σ_t	δT_{10}^{-5}	ΔD
m	°C	‰	ml/L	cm ³ /g	m	°C	‰	ml/L	g/L	cm ³ /g	dyn. m

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HORIZON; April 12, 1955; 0050 GCT; 26°53'N, 117°10'W; sounding, 2050 fm; wind, 340°, force 5; weather, clear; sea, very rough; wire angle, 17°.

120.70

0	16.23	33.53	5.90	336	0	16.23	33.53	5.90	24.58	336	0.00
10	16.20	33.55	5.79	334	10	16.20	33.55	5.79	24.61	334	0.03
29	16.14	33.58	5.78	330	20	16.18	33.57	5.77	24.63	332	0.07
53	15.24	33.45	5.48	321	30	16.13	33.58	5.74	24.65	330	0.10
67	14.82	33.41	5.68	315	50	15.38	33.47	5.49	24.73	322	0.16
77	14.39	33.37	5.53	309	75	14.46	33.37	5.58	24.86	310	0.24
91	13.05	33.33	4.33	286	100	12.36	33.35	4.38	25.26	272	0.32
115	11.32	33.41	4.53	249	150	9.26	33.79	3.71	26.15	187	0.44
148	9.27	33.78	3.73	188	200	9.27	34.16	2.00	26.44	160	0.52
173	9.20	33.96	2.98	174	250	9.22	34.30	1.12	26.56	149	0.60
229	9.30	34.28	1.55	151	300	8.89	34.32	0.63	26.63	142	0.68
308	8.80	34.32	0.58	141	400	7.81	34.37	0.32	26.83	123	0.82
416	7.62	34.38	0.31	120	500	6.81	34.40	0.25	27.00	107	0.94
559	6.32	34.42	0.25	100	600	6.03	34.44	0.29	27.13	95	1.04
757	5.12	34.49	0.40	81	700	5.43	34.48	0.36	27.23	85	1.14
998	4.06	34.52	0.58	67	800	4.91	34.50	0.44	27.31	77	1.23
1328	3.26	34.60	1.45	53	1000	4.05	34.52	0.58	27.42	67	1.38

HORIZON; April 11, 1955; 1827 GCT; 26°24'N, 117°44.5'W; sounding, 2200 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 38°.

120.80

0	16.50	33.56	5.63	340	0	16.50	33.56	5.63	24.55	340	0.00
8	16.48	33.60	5.32	337	10	16.47	33.60	5.31	24.58	337	0.03
24	16.45	33.59	5.18	337	20	16.45	33.59	5.20	24.58	337	0.07
44	16.41	33.64	4.81	332	30	16.43	33.61	5.00	24.60	335	0.10
56	16.33	33.58	4.86	335	50	16.38	33.61	4.83	24.61	334	0.17
64	16.10	33.52	5.05	334	75	15.70	33.58	5.69	24.74	321	0.25
75	15.70	33.58	5.69	321	100	13.50	33.50	4.39	25.15	282	0.33
94	14.50	33.48	4.86	303	150	12.28	34.37	0.55	26.07	195	0.44
120	11.70	33.80	3.01	227	200	11.96	34.66	0.29	26.35	168	0.54
138	12.16	34.28	1.12	200	250	11.21	34.74	0.25	26.55	149	0.62
180	12.16	34.58	0.35	178	300	10.54	34.68	0.29	26.63	142	0.69
236	11.40	34.75	0.25	152	400	8.62	34.52	0.29	26.82	124	0.83
333	10.04	34.64	0.33	137	500	7.41	34.51	0.20	26.99	108	0.95
417	8.29	34.50	0.26	120	600	6.60	34.51	0.19	27.11	96	1.06
562	6.88	34.51	0.19	100	700	5.78	34.52	0.20	27.22	86	1.16
748	5.48	34.52	0.22	82	800	5.23	34.53	0.23	27.29	79	1.25
1045	4.20	34.59	0.40	63	1000	4.40	34.57	0.35	27.43	66	1.40

HORIZON; April 10, 1955; 0657 GCT; 27°24.5'N, 114°40.5'W; sounding 38 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°.

123.37

0	12.42	33.68	4.49	249	0	12.42	33.68	4.49	25.50	249	0.00
10	12.42	33.72	4.56	246	10	12.42	33.72	4.56	25.53	246	0.02
15	12.05	33.70	3.95	241	20	11.68	33.68	4.20	25.64	235	0.05
20	11.68	33.68	4.20	235	30	10.89	33.77	3.01	25.86	215	0.07
25	11.03	33.73	3.33	220	50	10.84	33.94	2.30	26.00	202	0.11
30	10.89	33.77	3.01	215							
35	10.86	33.84	2.59	209							
40	10.87	33.88	2.51	207							
50	10.84	33.94	2.30	202							
60	10.87	34.04	1.81	195							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

123.40

HORIZON; April 10, 1955; 0859 GCT; 27°17.5'N, 114°51'W; sounding, 480 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 29°.

0	13.62	33.62	5.15	276	0	13.62	33.62	5.15	25.22	276	0.00
9	13.60	33.63	5.01	275	10	13.59	33.63	5.02	25.23	274	0.03
26	13.38	33.71	5.41	264	20	13.48	33.69	5.25	25.31	268	0.06
39	13.14	33.60	5.12	268	30	13.32	33.68	5.41	25.34	265	0.08
47	11.90	33.50	3.58	252	50	11.54	33.47	3.74	25.51	248	0.13
56	11.25	33.46	3.93	244	75	11.17	33.83	2.57	25.85	216	0.19
63	11.44	33.65	3.28	234	100	10.78	34.06	1.85	26.10	192	0.24
71	11.30	33.79	2.60	221	150	10.81	34.40	0.83	26.36	167	0.33
81	10.90	33.87	2.53	208	200	10.13	34.47	0.70	26.53	151	0.41
88	10.75	33.92	2.51	201	250	9.65	34.50	0.48	26.64	141	0.49
106	10.81	34.13	1.67	187	300	9.30	34.52	0.29	26.72	134	0.56
126	11.02	34.34	0.90	175	400	8.50	34.54	0.26	26.86	120	0.69
165	10.61	34.42	0.83	163	500	7.48	34.50	0.19	26.98	108	0.81
212	9.98	34.48	0.66	147							
298	9.32	34.52	0.31	134							
401	8.50	34.54	0.26	120							
522	7.23	34.49	0.18	106							

123.45

HORIZON; April 10, 1955; 1235 GCT; 27°05.5'N, 115°10.5'W; sounding, 2350 fm; wind, 290°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	15.66	33.54	7.52	323	0	15.66	33.54	7.52	24.72	323	0.00
10	15.68	33.45	6.07	330	10	15.68	33.45	6.07	24.65	330	0.03
29	15.70	33.49	5.76	328	20	15.70	33.47	5.90	24.66	329	0.07
43	15.48	33.48	4.68	324	30	15.69	33.49	5.70	24.68	327	0.10
57	13.18	33.42	5.44	282	50	14.47	33.45	4.96	24.92	304	0.16
67	-	33.30	4.64	-	75	11.79	33.34	4.82	25.36	262	0.23
76	11.73	33.35	4.82	260	100	10.60	33.65	3.14	25.82	219	0.29
90	10.90	33.49	3.60	236	150	10.12	34.07	2.40	26.23	180	0.40
98	10.61	33.62	3.22	221	200	10.11	34.43	1.22	26.51	153	0.48
112	10.53	33.78	3.09	208	250	9.77	34.52	0.59	26.64	140	0.55
139	10.32	33.98	2.19	189	300	9.13	34.49	0.52	26.72	133	0.62
165	9.94	34.16	2.52	170	400	8.20	34.51	0.44	26.88	118	0.76
216	10.16	34.54	0.65	146	500	7.11	34.44	0.30	26.98	108	0.87
277	9.35	34.49	0.56	137							
385	8.36	34.52	0.47	119							
518	6.89	34.42	0.28	107							

123.50

HORIZON; April 11, 1955; 0243 GCT; 26°55'N, 115°30'W; sounding, 1900 fm; wind, 310°, force 5; weather, cloudy; sea, very rough; wire angle, 18°.

0	15.95	33.47	5.46	334	0	15.95	33.47	5.46	24.61	334	0.00
10	15.96	33.53	5.53	330	10	15.96	33.53	5.53	24.65	330	0.03
29	15.82	33.51	5.54	328	20	15.92	33.52	5.54	24.66	329	0.07
44	15.27	33.48	5.56	319	30	15.81	33.51	5.55	24.67	328	0.10
58	13.27	33.52	5.14	276	50	14.38	33.49	5.50	24.96	301	0.16
68	12.42	33.54	4.23	259	75	11.92	33.61	3.32	25.55	244	0.23
78	11.68	33.69	2.94	235	100	11.32	34.01	1.88	25.97	204	0.29
92	11.40	33.95	2.13	211	150	11.00	34.23	1.33	26.20	182	0.38
101	11.31	34.02	1.88	204	200	10.61	34.49	0.81	26.47	157	0.47
116	11.24	34.13	1.79	195	250	10.11	34.51	0.48	26.57	148	0.55
143	11.06	34.21	1.43	185	300	9.34	34.45	0.50	26.66	139	0.62
170	10.79	34.31	1.18	174	400	7.87	34.47	0.28	26.90	116	0.76
224	10.45	34.54	0.48	151	500	6.82	34.47	0.27	27.05	102	0.87
288	9.53	34.45	0.51	142	600	6.17	34.47	0.25	27.14	94	0.97
400	7.87	34.47	0.28	116							
534	6.57	34.47	0.27	99							
675	5.78	34.47	0.25	89							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; April 11, 1955; 0519 GCT; 26°48.5'N, 115°48'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 27°.

123.55

0	16.05	33.55	5.32	331	0	16.05	33.55	5.32	24.64	331	0.00
9	16.06	33.55	5.35	331	10	16.05	33.55	5.36	24.64	331	0.03
28	16.02	33.62	5.42	325	20	16.05	33.59	5.40	24.68	328	0.07
41	15.88	33.52	5.95	329	30	16.01	33.61	5.51	24.71	324	0.10
55	15.75	33.49	6.28	328	50	15.81	33.50	6.21	24.66	329	0.16
64	14.75	33.42	5.62	313	75	13.00	33.40	4.85	25.17	280	0.24
72	13.52	33.41	5.06	289	100	11.09	33.58	4.06	25.68	232	0.30
85	11.58	33.39	4.32	255	150	10.03	34.02	2.87	26.20	182	0.41
94	11.22	33.48	4.24	243	200	9.77	34.31	1.42	26.48	156	0.50
106	10.94	33.66	3.80	224	250	9.38	34.41	1.05	26.62	143	0.57
132	10.28	33.86	3.40	198	300	8.82	34.42	0.73	26.71	134	0.64
156	9.99	34.07	2.27	178	400	7.71	34.43	0.38	26.89	117	0.78
207	9.73	34.34	1.39	154	500	6.85	34.47	0.34	27.04	102	0.89
266	9.21	34.42	0.96	140	600	6.02	34.46	0.35	27.15	93	0.99
369	8.02	34.42	0.42	122							
494	6.92	34.47	0.34	103							
626	5.82	34.46	0.35	91							

HORIZON; April 11, 1955; 0825 GCT; 26°37.5'N, 116°06.5'W; sounding, 2150 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 23°.

123.60

0	16.21	33.58	5.90	332	0	16.21	33.58	5.90	24.63	332	0.00
9	16.22	33.55	5.58	334	10	16.21	33.55	5.60	24.61	334	0.03
28	16.21	33.54	5.76	335	20	16.21	33.54	5.67	24.60	334	0.07
42	16.22	33.57	5.63	333	30	16.22	33.54	5.70	24.61	334	0.10
56	16.00	33.51	5.57	332	50	16.13	33.54	5.58	24.62	332	0.17
66	15.19	33.43	5.78	321	75	14.97	33.42	5.58	24.78	317	0.25
75	14.97	33.42	5.58	317	100	13.28	33.35	5.37	25.08	289	0.33
89	14.34	33.42	5.37	304	150	10.51	33.97	2.32	26.08	194	0.45
98	13.51	33.35	5.39	293	200	9.14a)	34.03	2.05	26.36	168	0.54
111	11.59	33.34	4.52	259	250	9.80	34.43	0.64	26.56	148	0.62
139	10.60	33.78	2.68	209	300	9.53	34.54	0.48	26.69	136	0.69
166	10.40	34.06	1.96	185	400	8.33	34.53	0.24	26.88	118	0.82
218	9.82	34.31	1.35	158	500	7.12	34.47	0.20	27.01	106	0.94
280	9.68	34.53	0.52	139	600	6.20	34.49	0.22	27.15	92	1.05
388	8.48	34.54	0.27	120							
518	6.96	34.47	0.20	104							
652	5.74	34.52	0.27	85							

HORIZON; April 10, 1955; 0225 GCT; 26°55'N, 114°06'W; sounding, 44 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 07°.

127.34

0	14.79	33.56	6.16	303	0	14.79	33.56	6.16	24.93	303	0.00
10	14.52	33.51	6.26	301	10	14.52	33.51	6.26	24.95	301	0.03
15	13.91	33.55	5.84	286	20	12.95	33.58	4.79	25.33	266	0.06
20	12.95	33.58	4.79	266	30	12.34	33.58	4.16	25.44	255	0.08
25	12.57	33.60	4.29	257	50	10.86	33.78	2.69	25.87	214	0.13
30	12.34	33.58	4.16	255							
35	11.78	33.68	3.59	237							
40	11.39	33.72	3.03	227							
50	10.86	33.78	2.69	214							
60	10.76	33.89	2.27	204							

a) Bathythermograph feature.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

127.40

HORIZON; April 9, 1955; 2325 GCT; 26°41.5'N, 114°30'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	16.18	33.56	5.07	332	0	16.18	33.56	5.07	24.62	332	0.00
10	16.15	33.58	4.72	330	10	16.15	33.58	4.72	24.64	330	0.03
30	15.88	33.57	5.06	326	20	16.08	33.58	4.79	24.66	329	0.07
44	15.00	33.49	5.82	313	30	15.88	33.57	5.06	24.69	326	0.10
59	13.84	33.33	5.78	301	50	14.71	33.44	5.82	24.85	311	0.16
68	13.38	33.48	5.08	281	75	12.98	33.44	4.92	25.21	277	0.24
78	12.66	33.41	4.87	273	100	10.77	33.53	4.21	25.70	230	0.30
92	11.04	33.46	4.21	241	150	10.24	34.01	2.60	26.16	186	0.40
101	10.76	33.54	4.21	229	200	10.12	34.31	1.27	26.41	162	0.49
115	10.51	33.78	3.43	208	250	9.61	34.35	0.89	26.53	151	0.57
144	10.24	33.96	2.81	191	300	9.07	34.36	0.63	26.63	142	0.65
172	10.27	34.18	1.96	175	400	8.06	34.41	0.36	26.82	123	0.79
229	9.82	34.35	1.02	155	500	7.04	34.44	0.33	27.00	107	0.91
296	9.09	34.36	0.66	142	600	6.25	34.43	0.32	27.10	98	1.01
410	7.98	34.42	0.32	121	700	(5.60)	(34.42)		(27.16)	(91)	(1.12)
546	6.61	34.44	0.35	102							
685	5.66	34.42	0.28	92							

127.45

HORIZON; April 9, 1955; 2023 GCT; 26°34.5'N, 114°49'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 24°.

0	16.48	33.75	5.78	326	0	16.48	33.75	5.78	24.70	326	0.00
10	16.46	33.64	5.21	334	10	16.46	33.64	5.21	24.61	334	0.03
28	16.36	33.63	5.29	331	20	16.40	33.63	5.21	24.62	333	0.07
42	16.34	33.63	5.45	330	30	16.34	33.63	5.35	24.64	331	0.10
56	15.14	33.52a)	4.89	313	50	16.32	33.63	5.46	24.65	330	0.17
65	14.55	33.58	5.32	297	75	12.80	33.43	4.31	25.25	273	0.24
74	13.06	33.45	4.39	277	100	11.09	33.52	3.61	25.63	237	0.31
87	11.53	33.46	4.20	249	150	9.89	33.93	2.55	26.16	186	0.41
96	11.23	33.49	3.64	242	200	9.97	34.32	1.75	26.45	159	0.50
110	10.64	33.58	3.56	225	250	9.66	34.47	0.75	26.62	143	0.58
136	9.91	33.77	3.00	199	300	9.00	34.49	0.53	26.74	132	0.65
163	9.90	34.05	2.15	178	400	7.95	34.44	0.27	26.86	120	0.78
216	9.99	34.40	1.02	153	500	6.97	34.44	0.21	27.00	106	0.90
281	9.21	34.49	0.60	134	600	6.16	34.44	0.20	27.11	96	1.00
394	8.01	34.44	0.29	120							
528	6.70	34.44	0.21	103							
668	5.65	34.45	0.20	89							

127.50

HORIZON; April 9, 1955; 1725 GCT; 26°23'N, 115°08'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 34°.

0	15.90	33.62	5.72	322	0	15.90	33.62	5.72	24.73	332	0.00
10	15.88	33.60	5.53	323	10	15.88	33.60	5.53	24.72	323	0.03
28	15.80	33.60	5.05	322	20	15.84	33.60	5.14	24.73	322	0.07
41	14.14	33.61	5.59	287	30	15.77	33.60	5.05	24.75	321	0.10
54	12.78	33.58	4.76	262	50	13.20	33.59	5.10	25.29	269	0.16
62	12.24	33.52	4.02	257	75	11.74	33.60	3.28	25.57	242	0.22
71	11.85	33.56	3.41	247	100	10.83	33.78	2.69	25.89	212	0.28
84	11.43	33.76	2.93	225	150	9.73	34.04	2.20	26.27	176	0.38
92	11.07	33.83	2.76	213	200	8.97	34.13	1.92	26.47	157	0.46
105	10.76	33.78	2.66	211	250	8.79	34.29	1.48	26.62	143	0.54
130	10.54	34.04	1.92	189	300	8.49	34.41	0.68	26.75	130	0.61
154	9.59	34.04	2.24	173	400	7.63	34.47	0.24	26.93	113	0.73
206	8.93	34.14	1.89	156	500	6.76	34.45	0.24	27.04	103	0.85
265	8.73	34.33	0.99	139	600	6.09	34.49	0.24	27.16	91	0.95
369	7.92	34.47	0.24	117							
497	6.80	34.45	0.24	103							
632	5.88	34.52	0.24	87							

a) Mean value of 33.49 and 33.55‰.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; April 9, 1955; 1308 GCT; 26°12'N, 115°25.5'W; sounding, 2025 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 12°.

127.55

0	15.84	33.63	6.15	321	0	15.84	33.63	6.15	24.75	321	0.00
10	15.84	33.66	6.02	318	10	15.84	33.66	6.02	24.78	318	0.03
30	15.85	33.59	5.86	324	20	15.85	33.62	5.94	24.74	321	0.06
45	15.24	33.53	5.79	315	30	15.85	33.59	5.86	24.72	324	0.10
60	14.26	33.49	5.70	298	50	14.96	33.51	5.79	24.86	310	0.16
70	13.43	33.55	4.69	277	75	12.85	33.57	4.28	25.34	264	0.23
80	12.42	33.58	4.08	256	100	11.68	33.72	2.99	25.68	232	0.30
94	11.94	33.68	3.09	240	150	9.89	33.97	2.45	26.19	183	0.40
103	11.49	33.75	2.96	227	200	9.60	34.19	1.60	26.41	162	0.49
118	11.06	33.94	2.14	205	250	8.89	34.29	1.22	26.60	144	0.56
147	9.90	33.96	2.47	185	300	8.32	34.31	0.98	26.70	135	0.64
176	9.85	34.10	1.90	173	400	7.30	34.33	0.53	26.87	119	0.77
237	9.06	34.28	1.30	148	500	6.62	34.38	0.25	27.00	106	0.89
305	8.27	34.31	0.94	134							
422	7.14	34.34	0.42	116							
563	6.34	34.42	0.19	100							

HORIZON; April 9, 1955; 0920 GCT; 26°03'N, 115°46'W; sounding, 2150 fm; wind, 290°, force 5; weather, partly cloudy; sea, very rough; wire angle, 22°.

127.60

0	15.82	33.50	5.82	330	0	15.82	33.50	5.82	24.65	330	0.00
10	15.83	33.47	6.09	332	10	15.83	33.47	6.09	24.63	332	0.03
30	15.85	33.47	6.28	332	20	15.85	33.47	6.18	24.63	332	0.07
44	15.84	33.46	5.75	332	30	15.85	33.47	6.28	24.63	332	0.10
59	15.44	33.45	6.31	325	50	15.76	33.45	5.88	24.64	331	0.17
68	15.06	33.43	6.63	319	75	14.67	33.40	6.28	24.84	312	0.25
78	14.52	33.40	6.18	309	100	14.10	33.50	5.81	25.03	294	0.32
93	14.44	33.46	6.23	304	150	10.85	33.82	3.06	25.90	211	0.45
102	13.93	33.50	5.49	290	200	9.48	34.07	2.86	26.33	170	0.55
116	11.62	33.36	4.36	258	250	8.92	34.23	1.60	26.55	149	0.63
144	11.03	33.78	3.04	217	300	8.29	34.26	1.12	26.68	138	0.70
173	9.75	33.90	3.35	187	400	7.20	34.30	0.57	26.86	120	0.84
229	9.16	34.20	1.86	155	500	6.40	34.36	0.38	27.02	105	0.95
295	8.34	34.26	1.16	139	600	5.80	34.38	0.37	27.11	96	1.06
410	7.13	34.31	0.54	118	700	(5.33)	(34.38)		(27.17)	(91)	(1.16)
548	6.08	34.38	0.35	99							
688	5.38	34.38	0.42	91							

HORIZON; April 8, 1955; 1105 GCT; 26°30.5'N, 113°27'W; sounding, 45 fm; wind, 320°, force 1; weather, cloudy; sea, slight; wire angle, 02°.

130.30

0	13.64	33.68	5.74	271	0	13.64	33.68	5.74	25.27	271	0.00
10	13.64	33.67	5.22	272	10	13.64	33.67	5.22	25.26	272	0.03
15	13.38	33.65	5.77	269	20	13.15	33.61	5.11	25.31	267	0.05
20	13.15	33.61	5.11	267	30	12.28	33.66	4.04	25.51	248	0.08
25	12.70	33.67	4.16	255	50	11.36	33.90	2.37	25.87	214	0.13
30	12.28	33.66	4.04	248							
35	11.60	33.76	3.11	228							
40	11.42	33.84	2.65	219							
50	11.36	33.90	2.37	214							
60	11.34	34.09	1.68	199							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT ₃	Z	T	S	O ₂	σ_t	δT ₃	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

130.35

HORIZON; April 8, 1955; 1351 GCT; 26°16'N, 113°47.5'W; sounding, 360 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	13.47	33.62	5.86	273	0	13.47	33.62	5.86	25.25	273	0.00
10	13.48	33.60	5.80	274	10	13.48	33.60	5.80	25.24	274	0.03
35	12.66	33.53	4.76	264	20	13.48	33.57	5.79	25.22	276	0.06
44	11.24	33.55	3.72	238	30	13.11	33.55	5.23	25.27	271	0.08
54	11.20	33.64	3.43	230	50	11.23	33.61	3.70	25.67	233	0.13
63	10.95	33.73	3.10	219	75	11.01	33.99	2.19	26.00	202	0.19
73	11.01	33.98	2.19	202	100	11.15	34.16	1.71	26.11	191	0.24
82	11.01	34.00	2.21	200	150	11.14	34.63	0.58	26.49	156	0.32
97	11.10	34.10	1.90	194	200	10.50	34.61	0.31	26.58	146	0.40
107	11.26	34.25	1.43	186	250	9.81	34.57	0.28	26.66	138	0.47
131	11.32	34.51	0.75	168	300	9.28	34.54	0.29	26.73	132	0.54
159	11.01	34.64	0.46	153	400	8.33	34.53	0.20	26.88	118	0.67
211	10.36	34.60	0.28	145	500	7.38	34.52	0.18	27.01	106	0.79
274	9.53	34.55	0.29	135	600	6.73	34.51	0.23	27.09	98	0.90
384	8.48	34.53	0.22	121							
511	7.26	34.52	0.18	104							
645	6.50	34.50	0.29	96							

130.40

HORIZON; April 8, 1955; 1640, 1853 GCT; 26°08'N, 114°06.5'W; sounding, 1225 fm; wind, 290°, force 4; weather, clear; sea, rough; wire angle, 37°, 11°.

0	15.94	33.57	a)	327	0	15.94	33.57		24.68	327	0.00
8	15.92	33.56		327	10	15.91	33.55		24.68	327	0.03
25	15.15	33.51		314	20	15.43	33.52		24.76	319	0.06
45	14.29	33.55		294	30	14.90	33.52		24.87	309	0.10
57	14.10	33.63u		-	50	14.20	33.57		25.06	290	0.16
65	14.10	33.61u		-	75	12.83	33.43		25.23	274	0.23
76	12.78	33.43		274	100	11.34	33.55		25.61	239	0.29
97	11.46	33.53		243	150	10.61	34.02		26.10	192	0.40
125	10.79	33.78		212	200	10.32	34.35		26.41	163	0.49
144	10.64	33.96		197	250	9.54	34.39		26.57	147	0.57
191	10.46	34.34		165	300	8.92	34.43		26.71	134	0.64
					400	7.72	34.42		26.88	118	0.77
172	10.60	34.28		172	500	6.82	34.43		27.01	105	0.89
226	9.88	34.35		155	600	6.09	34.46		27.14	94	1.00
299	8.92	34.43		134	700	5.45	34.53		27.28	80	1.09
399	7.77	34.42		118	800	4.90	34.53		27.34	74	1.17
534	6.58	34.43		102	1000	4.20	34.53		27.42	67	1.33
720	5.32	34.54		79							
946	4.37	34.53		69							
1267	3.46	34.56		58							

a) Two oxygen samples missing; values are listed in order of increasing depth: 5.39, 5.50, 5.70, 5.37, 5.49, 5.70, 4.76, 4.01, 2.88, 1.30, 0.93, 0.59, 0.43, 0.26, 0.30, 0.43, 0.83.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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HORIZON; April 8, 1955; 2323 GCT; 25°47.5'N, 114°46'W; sounding, 2000 fm; wind, 300°, force 5; weather, partly cloudy; sea, rough; wire angle, 28°.

130.50

0	16.67	33.57	5.56	343	0	16.67	33.57	5.56	24.52	343	0.00
9	16.66	33.66	5.28	336	10	16.66	33.67	5.28	24.59	336	0.03
27	16.57	33.68	5.76	332	20	16.60	33.67	5.65	24.61	334	0.07
50	15.50	33.53	5.82	320	30	16.52	33.68	5.79	24.63	332	0.10
63	14.97	33.46	5.18	314	50	15.50	33.53	5.82	24.75	320	0.17
72	14.57	33.42	5.27	309	75	14.20	33.39	5.27	24.93	303	0.24
85	12.38	33.36	4.97	271	100	11.12	33.44	4.61	25.56	244	0.31
107	10.80	33.48	4.52	235	150	9.89	33.90	3.00	26.14	189	0.42
135	9.98	33.79	3.44	199	200	9.30	34.18	1.84	26.45	159	0.51
157	9.84	33.94	2.63	185	250	8.97	34.31	1.20	26.60	144	0.59
207	9.22	34.21	1.74	156	300	8.77	34.38	0.78	26.70	136	0.66
279	8.82	34.35	0.97	139	400	8.14	34.48	0.30	26.87	120	0.79
375	8.38	34.48	0.34	123	500	6.92	34.44	0.25	27.01	106	0.91
506	6.86	34.44	0.25	105	600	6.11	34.46	0.27	27.14	94	1.02
688	5.58	34.49	0.31	85	700	5.50	34.49	0.31	27.24	84	1.11
911	4.52	34.54	0.42	70	800	4.98	34.52	0.36	27.32	76	1.20
1227	3.59	34.59	0.78	57	1000	4.25	34.55	0.51	27.43	66	1.36

HORIZON; April 9, 1955; 0358 GCT; 25°30'N, 115°23'W; sounding, 2120 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 27°.

130.60

0	16.73	33.68	5.78	336	0	16.73	33.68	5.78	24.59	336	0.00
9	16.72	33.60	5.74	341	10	16.72	33.60	5.73	24.53	341	0.03
27	16.72	33.68	5.41	336	20	16.72	33.65	5.57	24.57	338	0.07
50	16.44	33.59	5.53	336	30	16.71	33.67	5.41	24.59	335	0.10
63	15.30	33.51	5.89	317	50	16.44	33.59	5.53	24.59	336	0.17
72	14.71	33.45	5.93	309	75	14.51	33.44	5.74	24.90	306	0.25
86	14.02	33.44	4.44	297	100	12.75	33.41	4.99	25.24	274	0.32
109	11.88	33.40	5.37	260	150	10.40	33.81	2.70	25.97	204	0.44
141	10.41	33.69	3.04	213	200	10.52	34.48	1.53	26.48	156	0.53
163	10.38	33.96	2.39	192	250	9.93	34.48	0.99	26.58	147	0.61
216	10.55	34.53	1.27	153	300	8.87	34.41	0.70	26.70	135	0.68
287	9.05	34.41	0.76	138	400	7.91	34.42	0.50	26.86	120	0.82
387	8.03	34.42	0.51	122	500	6.98	34.43	0.37	27.00	107	0.94
521	6.79	34.43	0.34	104	600	6.18	34.45	0.37	27.12	96	1.04
708	5.42	34.49	0.46	84	700	5.50	34.49	0.46	27.23	85	1.14
937	4.32	34.53	0.46	69	800	4.94	34.51	0.46	27.31	77	1.23
1261	3.47	34.60	0.74	55	1000	4.16	34.54	0.50	27.43	66	1.39

HORIZON; April 8, 1955; 0638 GCT; 26°05'N, 112°48'W; sounding, 45 fm; wind, 300°, force 2; weather, cloudy; sea, slight; wire angle, 03°.

133.25

0	14.87	33.66	6.44	298	0	14.87	33.66	6.44	24.99	298	0.00
10	14.54	33.63	5.74	294	10	14.54	33.63	5.74	25.03	294	0.03
15	14.40	33.73	5.09	283	20	14.28	33.82	4.84	25.24	274	0.06
20	14.28	33.82	4.84	274	30	13.97	33.91	3.93	25.37	261	0.08
25	14.09	33.85	4.04	268	50	12.63	34.04	0.93	25.74	226	0.13
30	13.97	33.91	3.93	261							
35	13.88	33.93	3.83	258							
40	13.52	33.94	2.45	250							
50	12.63	34.04	0.93	226							
60	12.48	34.12	0.58	218							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

133.30 HORIZON; April 8, 1955; 0315 GCT; 25°54.5'N, 113°07.5'W; sounding, 100 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 06°.

0	16.21	33.68	5.72	325	0	16.21	33.68	5.72	24.71	325	0.00
10	15.80	33.66	5.57	317	10	15.80	33.66	5.57	24.78	317	0.03
15	15.55	33.64	5.59	313	20	15.24	33.62	5.62	24.88	308	0.06
20	15.24	33.62	5.62	308	30	14.64	33.61	5.28	25.00	297	0.09
25	15.04	33.61	5.55	305	50	12.38	33.71	3.28	25.54	246	0.15
30	14.64	33.61	5.28	297	75	11.93	34.04	2.40	25.88	213	0.21
35	13.76	33.58	5.02	281	100	11.72	34.34	1.22	26.15	187	0.26
45	12.77	33.68	3.61	255	150	11.53	34.54	0.42	26.35	169	0.34
55	12.18	33.74	3.09	240							
65	11.94	33.86	2.67	227							
80	11.91	34.13	1.83	206							
100	11.72	34.34	1.22	187							
120	11.70	34.52	0.42	173							
155	11.49	34.54	0.42	168							

133.40 HORIZON; April 7, 1955; 1845, 1917 GCT; 25°34'N, 113°45'W; sounding, 1700 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 22°, 24°.

0	16.36	33.59	5.39	335	0	16.36	33.59	5.39	24.60	335	0.00
10	16.23	33.58	5.86	332	10	16.23	33.58	5.86	24.63	332	0.03
28	16.19	33.62	5.78	328	20	16.19	33.61	5.82	24.66	329	0.07
42	16.18	33.60	5.51	329	30	16.18	33.62	5.70	24.67	328	0.10
52	16.09	33.63	5.29	325	50	16.16	33.63	5.35	24.69	326	0.16
61	15.04	33.54	5.64	311	75	13.61	33.47	5.57	25.10	287	0.24
70	14.23	33.51	5.74	296	100	11.19	33.40	4.33	25.53	246	0.31
80	13.07	33.42	5.37	279	150	11.57	34.26	1.27	26.12	190	0.42
95	11.81	33.39	4.59	259	200	11.39	34.60	0.75	26.42	162	0.51
103	11.10	33.42	4.24	244	250	10.73	34.64		26.56	148	0.59
126	11.86	34.06	1.76	210	300	10.03	34.62		26.67	138	0.66
154	11.51	34.30	1.20	187	400	8.63	34.56		26.85	121	0.79
203	11.38	34.61	0.45	161	500	7.48	34.51		26.99	108	0.92
21p	16.19	33.67u		-							
48p	16.18	33.61		329							
158p	11.45	34.37		181							
263p	10.55	34.64		145							
385p	8.84	34.57		123							
518p	7.28	34.51		105							

133.50 HORIZON; April 7, 1955; 1345 GCT; 25°17'N, 114°25.5'W; sounding, 1750 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 19°.

0	17.72	33.96	5.06	338	0	17.72	33.96	5.06	24.57	338	0.00
10	17.71	33.94	5.16	339	10	17.71	33.94	5.16	24.56	339	0.03
29	17.73	33.96	5.21	338	20	17.72	33.95	5.17	24.57	338	0.07
43	17.70	33.95	5.26	338	30	17.71	33.95	5.21	24.57	338	0.10
52	17.66	33.92	5.18	340	50	17.67	33.93	5.19	24.55	339	0.17
62	15.94	33.75	5.32	313	75	13.69	33.62	4.31	25.21	277	0.25
71	14.20	33.61	4.64	288	100	12.37	33.91	2.61	25.69	231	0.31
80	13.32	33.66	4.02	267	150	11.42	34.26	1.43	26.14	188	0.42
103	12.32	33.93	2.35	228	200	10.24	34.38	1.09	26.45	159	0.50
127	12.28	34.23	1.52	206	250	9.64	34.44	0.79	26.60	145	0.58
154	11.29	34.27	1.42	185	300	9.28	34.48	0.53	26.69	136	0.66
205	10.14	34.39	1.04	157	400	8.46	34.51	0.22	26.84	122	0.79
265	9.53	34.45	0.72	142	500	7.40	34.48	0.23	26.97	109	0.91
371	8.74	34.52	0.26	125	600	6.49	34.49	0.34	27.10	97	1.02
495	7.44	34.48	0.22	110							
626	6.22	34.49	0.38	93							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; April 6, 1955; 1932 GCT; 25°35'N, 112°15'W; sounding, 45 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°.

137.23

0	16.16	33.73	5.33	320	0	16.16	33.73	5.33	24.76	320	0.00
10	15.70	33.77	5.37	307	10	15.70	33.77	5.37	24.89	307	0.03
15	15.63	33.78	5.19	305	20	14.84	33.69	4.83	25.02	295	0.06
20	14.84	33.69	4.83	295	30	12.81	33.78	3.06	25.51	248	0.09
25	12.96	33.72	3.27	255	50	12.44	34.02	2.09	25.77	224	0.14
30	12.81	33.78	3.06	248							
35	12.64	33.82	2.70	243							
40	12.64	33.86a)	2.68	240							
50	12.44	34.02a)	2.09	224							
60	12.43	34.17	0.81	213							

HORIZON; April 6, 1955; 2258 GCT; 25°17'N, 112°51'W; sounding, 45 fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 09°.

137.30

0	16.40	33.64	5.53	332	0	16.40	33.64	5.53	24.63	332	0.00
10	16.28	33.64	5.40	329	10	16.28	33.64	5.40	24.66	329	0.03
15	16.09	33.72	6.09	319	20	16.00	33.63	5.40	24.72	324	0.07
20	16.00	33.63	5.40	324	30	15.95	33.60	5.37	24.71	324	0.10
25	15.98	33.61	5.38	325	50	13.84	33.51	5.63	25.09	288	0.16
30	15.95	33.60	5.37	324							
35	15.60	33.67	5.74	312							
40	15.00	33.58	5.65	306							
50	13.84	33.51	5.63	288							
60	12.78	33.53	4.59	266							

HORIZON; April 7, 1955; 0318 GCT; 24°58.5'N, 113°25.5'W; sounding, 2125 fm; wind 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°.

137.40

0	17.82	33.94	4.49	342	0	17.82	33.94	4.49	24.53	342	0.00
10	17.82	33.95	5.52	341	10	17.82	33.95	5.52	24.53	341	0.03
28	17.74	34.00	5.17	335	20	17.77	33.98	5.43	24.57	337	0.07
42	16.88	33.89	5.37	324	30	17.72	34.00	5.12	24.60	334	0.10
51	16.32	33.85	5.25	314	50	16.37	33.86	5.28	24.80	316	0.17
60	15.43	33.77	4.78	302	75	15.00	33.78	4.33	25.05	292	0.24
69	15.22	33.75	4.68	299	100	13.42	33.93	2.89	25.50	249	0.31
77	14.88	33.80	4.24	288	150	11.88	34.42	1.17	26.18	184	0.42
91	13.70	33.81	3.58	263	200	11.13	34.61	0.56	26.46	158	0.51
100	13.42	33.93	2.89	249	250	10.52	34.64	0.42	26.60	145	0.58
122	12.50	34.17	1.91	214	300	9.83	34.63	0.32	26.71	134	0.66
149	11.89	34.41	1.18	185	400	8.43	34.59	0.20	26.91	115	0.79
198	11.18	34.60	0.57	159	500	7.41	34.59	0.16	27.05	102	0.91
256	10.46	34.64	0.39	144	600	6.48	34.53	0.14	27.14	93	1.00
359	8.98	34.60	0.23	123							
480	7.60	34.59	0.17	104							
609	6.40	34.53	0.14	92							

a) Salinity samples at 40 and 50 meters appear to have been reversed; they are assumed to be listed in correct order.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

137.50

HORIZON; April 7, 1955; 0809 GCT; 24°38.5'N, 114°01.5'W; sounding, 2100 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 10°.

0	17.44	33.91	5.41	336	0	17.44	33.91	5.41	24.59	336	0.00
10	17.44	33.90	5.29	336	10	17.44	33.90	5.29	24.59	336	0.03
14p	17.47	33.94	5.08	334	20	17.46	33.94	5.35	24.61	334	0.07
26p	17.42	33.92	5.61	334	30	17.40	33.91	5.56	24.60	334	0.10
40p	17.30	33.87	5.45	335	50	16.72	33.92	5.34	24.77	319	0.17
49p	16.81	33.92	5.35	320	75	14.25	33.66	5.06	25.12	285	0.24
58p	16.07a)	33.90	5.40	305	100	12.43	33.75	3.07	25.56	244	0.31
71p	14.83	33.73	5.03	292	150	10.72	34.19	1.70	26.21	182	0.41
80p	13.67	33.63	5.07	276	200	10.87	34.59	0.60	26.50	154	0.50
92p	12.73	33.68	3.71	254	250	10.14	34.62	0.29	26.65	140	0.57
118p	11.86	34.05	1.92	212	300	9.49	34.63	0.19	26.76	129	0.64
144p	10.72	34.14	1.97	185	400	8.32	34.62	0.15	26.95	112	0.77
196p	10.88	34.58	0.66	155	500	7.25	34.57	0.18	27.07	100	0.88
257p	10.06	34.62	0.27	139	600	6.43	34.55	0.11	27.16	91	0.98
363p	8.76	34.63	0.13	117							
486p	7.39	34.58	0.19	102							
614p	6.33	34.55	0.11	90							

a) Alternate value, 16.51°C, not used in interpolation.

92.163

SPENCER F. BAIRD; May 18, 1955; 2026 GCT; 28°34'N, 126°32'W; sounding, 2450 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	16.77				0	16.77					
10	16.70				10	16.70					
49	16.40				20	16.62					
67	16.42				30	16.53					
98	16.32				50	16.40					
134	15.71				75	16.41					
195	10.46				100	16.30					
266	8.36				150	14.10					
362	7.14				200	10.37					
488	6.32				250	8.67					
698	5.00				300	7.89					
1055	3.72				400	6.81					
					500	6.23					
					600	5.57					
					700	4.99					
					800	4.58					
					1000	3.91					

93.155

HORIZON; May 12, 1955; 1810, 1930 GCT; 28°44.5'N, 125°59'W; sounding, 2300 fm; wind, 360°, force 3; weather, overcast; sea, moderate; wire angle, 06°, 11°.

0	16.32	33.78	5.13	320	0	16.32	33.78	5.13	24.76	320	0.00
15	16.29	33.81	5.37	317	10	16.30	33.80	5.30	24.78	318	0.03
30	16.57	33.88	5.49	318	20	16.36	33.83	5.42	24.79	317	0.06
46	16.49	33.91	5.54	314	30	16.57	33.88	5.49	24.78	318	0.10
61	16.50	33.90	5.42	316	50	16.50	33.91	5.48	24.81	315	0.16
76	16.38	33.90	5.50	313	75	16.40	33.90	5.48	24.83	313	0.24
91	16.29	33.85	5.16	314	100	16.18	33.85	5.48	24.84	312	0.32
106	16.14	33.87	5.45	309	150	15.86	33.90	5.42	24.96	301	0.47
116	16.15	33.89	5.31	308	200	12.15	33.54	5.08	25.45	254	0.61
132	16.30	33.97	5.43	306	250	9.60	33.69	4.47	26.02	200	0.73
167	13.45	33.64	5.24	271	300	8.38	33.91	3.37	26.39	165	0.82
					400	6.65	34.02	2.60	26.71	134	0.98
155	15.18	33.75	5.40	297	500	6.06	34.19	0.73	26.93	114	1.11
205	11.79	33.51	5.05	250	600	5.31	34.27	0.46	27.07	100	1.22
254	9.54	33.71	4.43	198	700	4.81	34.32	0.41	27.18	90	1.32
306	8.24	33.93	3.29	162	800	4.43	34.38	0.39	27.26	82	1.42
402	6.62	34.02	2.59	133	1000	3.92	34.51	0.68	27.43	66	1.58
500	6.06	34.19	0.73	114	1200	3.34	34.56	0.92	27.53	57	1.72
601	5.30	34.27	0.45	100	1500	(2.75)	(34.59)	(1.22)	(27.61)	(49)	(1.91)
796	4.44	34.37	0.38	83							
994	3.94	34.51	0.67	67							
1199	3.35	34.56	0.92	57							
1496	2.76	34.59	1.22	49							

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
63.52-B	V-19	1325	37°19.0'	122°36.0'	145	230° 3	clear	slight	10.50 33.42
63.55-B	19	1500	37°13.0'	122°50.0'	160	230° 3	clear	moderate	9.28 33.79
63.65-B	19	2005	36°53.0'	123°32.0'	1900	330° 4	clear	moderate	- 33.30
67.50-B	20	0835	36°49.0'	122°04.5'	50	calm	clear	smooth	11.29 33.72
67.55-B	20	0600	36°39.0'	122°26.0'	1150	330° 2	clear	slight	10.48 33.73
67.65-B	20	0045	36°19.0'	123°09.0'	1900	330° 4	partly cloudy	moderate	12.64 33.41
70.52-B	20	1400	36°08.0'	121°50.0'	370	280° 3	fog	smooth	9.50 33.78
70.55-B	20	1530	36°03.0'	122°02.0'	650	300° 2	clear	moderate	10.38 33.68
70.60-B	20	1810	35°53.0'	122°23.0'	1800	300° 3	fog	moderate	11.11 33.56
70.70-B	20	2300	35°33.0'	123°06.0'	2100	320° 5	overcast	rough	12.26 33.42
77.50-B	22	1010	35°04.0'	120°52.0'	85	310° 1	missing	smooth	10.70 33.53
77.55-B	22	0700	34°55.0'	121°13.0'	320	320° 1	missing	slight	11.88 33.42
77.65-B	23	0130	34°34.0'	121°55.0'	-	- -	missing	missing	13.48 33.44a)
77.70-B	23	0445	34°24.0'	122°16.0'	-	- -	missing	missing	13.10b) 33.31
77.80-B	23	0925	34°05.0'	122°58.0'	-	- -	missing	missing	13.18 33.34
77.90-B	23	1515	33°44.0'	123°39.0'	-	- -	missing	missing	13.36 33.37

a) Mean value of 33.40 and 33.48‰.

b) Mean value of 12.98 and 13.21°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
80. 51-B	V-24	2030	34°27.0'	120°32.0'	-	-	-	missing	missing	11.24a) 33.87
80. 55-B	24	1845	34°19.0'	120°48.0'	-	-	-	missing	missing	12.02b) 33.78
80. 60-B	24	1340	34°09.0'	121°09.0'	-	-	-	missing	missing	12.28 33.53
80. 70-B	24	0810	33°49.0'	121°51.0'	-	-	-	missing	missing	12.80 33.32
80. 80-B	24	0220	33°29.0'	122°32.0'	-	-	-	missing	missing	13.07c) 33.31
80. 90-B	23	2120	33°09.0'	123°13.0'	-	-	-	missing	missing	13.58 33.42
83. 40-B	25	0940	34°14.0'	119°22.0'	-	-	-	missing	missing	12.83 33.67
83. 43-B	25	1150	34°08.0'	119°34.0'	-	-	-	missing	missing	12.76 33.67
83. 51-B	25	1755	33°52.0'	120°08.5'	-	-	-	missing	missing	12.36 33.61
83. 60-B	25	2325	33°34.0'	120°45.0'	-	-	-	missing	missing	11.98d) 33.43
83. 70-B	26	0500	33°14.0'	121°26.0'	-	-	-	missing	missing	12.44 33.69
87. 35-B	27	1030	33°50.0'	118°38.0'	450	calm		clear	slight	15.72 33.60
87. 40-B	27	0650	33°40.0'	118°58.5'	480	calm		clear	calm	15.38 33.60
87. 45-B	27	0340	33°30.0'	119°19.0'	915	300°	3	clear	moderate	13.53 33.65

a) Mean value of 11.12 and 11.36°C.

b) Mean value of 11.91 and 12.13°C.

c) Mean value of 12.98 and 13.16°C.

d) Alternate value, 11.80°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
87.50-B	V-27	0030	33°20.0'	119°39.0'	40	300° 6	cloudy	very rough	13.34 33.67
87.55-B	26	2150	33°10.0'	120°01.0'	-	- -	missing	missing	12.92 33.48
87.60-B	26	1715	33°00.0'	120°21.0'	-	- -	missing	missing	12.79 33.54
90.28-B	28	0350	33°28.5'	117°46.5'	250	calm	clear	slight	17.36 33.59
90.30-B	28	0550	33°24.5'	117°55.0'	460	180° 1	clear	slight	16.39 33.58
90.37-B	28	0920	33°11.0'	118°23.0'	450	220° 1	clear	slight	16.64 33.57
90.45-B	28	1330	32°55.0'	118°56.0'	950	290° 1	fog	slight	13.30 33.63
90.50-B	28	1700	32°44.0'	119°16.5'	135	290° 1	fog	moderate	12.82 33.66
90.55-B	28	2015	32°34.0'	119°36.5'	650	180° 1	missing	slight	12.14 33.58
90.60-B	28	2320	32°25.0'	119°58.0'	500	290° 1	partly cloudy	moderate	12.79 33.53
90.65-B	29	0230	32°15.0'	120°19.0'	2000	- 1	cloudy	rough	12.82 33.52
90.70-B	29	0545	32°04.0'	120°39.0'	2100	290° 2	missing	slight	14.40 33.42
90.75-B	29	0920	31°54.0'	120°58.0'	2000	270° 2	missing	moderate	14.40 33.40
90.80-B	29	1230	31°45.0'	121°19.0'	2160	300° 2	overcast	moderate	14.82 33.41
90.85-B	29	1550	31°33.0'	121°41.0'	2150	320° 3	partly cloudy	moderate	14.86 33.40
90.90-B	29	1905	31°25.0'	121°59.0'	2150	320° 3	cloudy	moderate	15.18 33.44
93.27-B	31	2045	32°56.0'	117°19.0'	60	270° 2	cloudy	slight	16.72 33.57
93.30-B	31	1810	32°50.0'	117°31.5'	420	280° 2	overcast	slight	16.78 33.58
93.35-B	31	1500	32°40.0'	117°52.0'	325	270° 4	cloudy	moderate	16.56 33.57

TEMPERATURE AND SALINITY AT 10-METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
93.40-B	V-31	1130	32°30.0'	118°13.0'	850	240°	3	missing	moderate	16.30 33.54
93.45-B	31	0815	32°20.0'	118°32.0'	800	330°	4	missing	moderate	15.26 33.60
93.50-B	31	0500	32°10.0'	118°53.5'	740	320°	2	missing	moderate	13.20 33.47
93.55-B	31	0220	32°00.0'	119°14.0'	800	320°	3	cloudy	moderate	15.00 33.41
93.60-B	30	2240	31°50.0'	119°34.0'	1900	330°	3	cloudy	moderate	14.81 33.47
93.65-B	30	1930	31°40.0'	119°55.0'	2050	330°	4	cloudy	rough	14.88a) 33.48
93.70-B	30	1630	31°28.0'	120°10.0'	2000	320°	3	cloudy	moderate	14.75 33.46
93.75-B	30	1240	31°18.0'	120°32.0'	2200	320°	4	drizzle	moderate	13.75 33.33
93.80-B	30	0930	31°09.0'	120°54.0'	2000+	320°	4	drizzle	rough	14.23 33.40
93.85-B	30	0650	30°59.0'	121°14.0'	2150	310°	4	drizzle	moderate	14.06 33.40
93.90-B	30	0330	30°50.0'	121°35.0'	2150	340°	3	cloudy	moderate	14.98 33.42
93.95-B	30	0030	30°41.0'	121°56.0'	2200	330°	3	cloudy	moderate	15.28 33.45
97.30-B	VI-6	0615	32°15.5'	117°09.0'	33	calm		overcast	slight	16.95 33.52
97.32-B	6	0745	32°11.5'	117°17.0'	700	calm		overcast	calm	16.00 33.52
97.35-B	6	0915	32°05.5'	117°29.0'	700	270°	1	overcast	slight	15.64 33.58
97.40-B	6	1230	31°56.0'	117°50.0'	900	300°	2	overcast	moderate	16.38 33.65
97.45-B	6	1540	31°44.0'	118°09.0'	800	280°	2	drizzle	smooth	15.89 33.68

a) Mean value of 14.79 and 14.97°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
97.50-B	VI-6	1820	31°35.5'	118°30.5'	1050	280° 1	cloudy	slight	14.69 33.48
97.55-B	6	2120	31°25.5'	118°49.0'	500	270° 2	cloudy	moderate	15.28 33.45
97.60-B	7	0030	31°15.0'	119°11.0'	2150	280° 3	cloudy	moderate	15.52 33.49
97.65-B	7	0320	31°06.0'	119°30.0'	2000	280° 3	drizzle	moderate	15.32 33.50
97.70-B	7	0630	30°55.0'	119°50.5'	1050	calm	fog	slight	15.40 33.49
97.75-B	7	0920	30°45.0'	120°13.0'	2000	270° 1	drizzle	slight	15.42 33.50
97.80-B	7	1210	30°36.0'	120°31.0'	2200	280° 1	drizzle	slight	15.41 33.48
97.85-B	7	1530	30°25.0'	120°51.0'	1800	280° 2	cloudy	moderate	15.34 33.52
97.90-B	7	1830	30°15.0'	121°11.0'	2000	290° 1	overcast	slight	14.93 33.40
100.29-B	6	0050	31°42.0'	116°43.0'	80	270° 2	overcast	slight	15.61 33.54
100.30-B	5	2350	31°40.5'	116°46.5'	260	300° 1	overcast	slight	16.24 33.58
100.35-B	5	1940	31°31.0'	117°07.0'	700	300° 1	overcast	slight	15.86 33.50
100.40-B	5	1620	31°21.0'	117°27.0'	1000	300° 1	overcast	slight	14.73 33.62
100.45-B	5	1345	31°11.0'	117°46.0'	800	320° 3	overcast	moderate	14.99 33.50
100.50-B	5	1030	31°01.0'	118°07.0'	600	360° 2	cloudy	slight	15.79 33.53
100.55-B	5	0725	30°51.0'	118°27.0'	1400	300° 1	cloudy	slight	15.96 33.52
100.60-B	5	0440	30°41.0'	118°47.5'	1700	300° 1	missing	slight	15.43 33.49
100.65-B	5	0130	30°31.0'	119°07.0'	2000	320° 3	cloudy	moderate	15.86 33.48
100.70-B	4	2215	30°20.5'	119°27.0'	2000	330° 2	cloudy	moderate	15.71 33.49

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
100. 75-B	VI-4	1930	30°10.5'	119°47.0'	1850	320°	1	overcast	slight	15.77 33.48
100. 80-B	4	1630	30°01.0'	120°07.0'	2100	310°	2	cloudy	slight	15.54 33.48
100. 85-B	4	1355	29°51.0'	120°27.5'	2100	340°	2	overcast	moderate	15.76 33.58
100. 90-B	4	1035	29°40.0'	120°47.0'	2000	330°	3	overcast	moderate	16.40a) 33.73
103. 30-B	2	1500	31°06.0'	116°25.0'	40	280°	1	cloudy	slight	13.64 33.54
103. 35-B	2	1740	30°55.5'	116°45.0'	950	300°	2	partly cloudy	moderate	16.10 33.54
103. 40-B	2	2030	30°45.5'	117°05.5'	900	300°	3	partly cloudy	moderate	15.96 33.51
103. 45-B	3	0000	30°36.0'	117°25.0'	1000	290°	3	partly cloudy	moderate	15.88 33.56
103. 50-B	3	0350	30°25.0'	117°46.0'	1600	300°	2	clear	moderate	15.91 33.58
103. 55-B	3	0635	30°16.0'	118°05.0'	1300	-	2	partly cloudy	moderate	15.76 33.52
103. 60-B	3	0930	30°08.0'	118°25.5'	1500	300°	3	partly cloudy	moderate	16.00 33.51
103. 65-B	3	1220	29°57.0'	118°43.5'	1800	320°	3	partly cloudy	moderate	15.38b) 33.42
103. 70-B	3	1615	29°46.0'	119°05.5'	1850	300°	2	partly cloudy	moderate	15.18 33.45
103. 75-B	3	1930	29°36.0'	119°25.5'	2400	300°	1	cloudy	slight	14.96 33.44
103. 80-B	3	2230	29°26.5'	119°45.5'	2000	300°	2	overcast	moderate	15.65 33.45
103. 85-B	4	0200	29°16.0'	120°06.0'	2000	340°	3	cloudy	moderate	16.15 33.65

a) Mean value of 16.31 and 16.50°C.

b) Mean value of 15.29 and 15.47°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
103.90-B	VI-4	0500	29°06.0'	120°25.0'	2050	340° 3	cloudy	moderate	16.36 33.66
107.32-C	1	1400	30°26.0'	116°11.0'	224	340° 4	partly cloudy	rough	13.74 33.61
107.35-C	1	1215	30°17.0'	116°21.0'	1000	330° 3	cloudy	moderate	15.56 33.61
107.40-C	1	0930	30°07.0'	116°41.5'	1550	330° 4	cloudy	moderate	15.82 33.48
107.45-C	1	0620	29°57.5'	117°02.0'	1000	340° 5	cloudy	moderate	16.28 33.49
107.50-C	1	0340	29°49.5'	117°24.0'	1400	340° 4	overcast	moderate	15.66 33.45
107.55-C	1	0050	29°41.0'	117°41.5'	1800	320° 4	cloudy	very rough	16.02 33.53
107.60-C	V-31	2220	29°31.5'	117°59.5'	2000+	330° 4	cloudy	very rough	16.22 33.60
107.65-C	31	1900	29°21.5'	118°23.0'	775	330° 4	cloudy	very rough	16.62 33.54
107.70-C	31	1630	29°13.0'	118°42.5'	1850	330° 5	overcast	very rough	16.62 33.58
107.75-C	31	1335	29°03.5'	119°02.5'	1850	350° 5	overcast	rough	16.63 33.60
107.80-C	31	1055	28°52.0'	119°23.5'	2000	330° 4	overcast	moderate	16.26 33.72
107.85-C	31	0750	28°50.0'	119°42.0'	2050	340° 4	overcast	moderate	16.12 33.52
107.90-C	31	0500	28°31.5'	120°01.0'	2200	340° 4	overcast	very rough	16.53 33.56
110.33-C	29	1645	29°50.5'	115°52.5'	61	330° 2	fog	moderate	14.28 33.45
110.35-C	29	1800	29°46.5'	116°00.0'	600	270° 2	fog	moderate	14.98 33.53
110.40-C	29	2045	29°36.0'	116°21.0'	1450	300° 2	overcast	rough	15.20 33.63
110.45-C	29	2330	29°30.0'	116°41.5'	750	310° 4	overcast	moderate	15.74 33.52
110.50-C	30	0230	29°13.0'	117°02.0'	2100	230° 3	overcast	moderate	16.24 33.58

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
110.55-C	V-30	0510	29°02.0'	117°22.5'	3000	260°	2	cloudy	moderate	16.55 33.53
110.60-C	30	0815	28°52.0'	117°42.5'	2000	240°	3	cloudy	moderate	16.14 33.52
110.65-C	30	1030	28°40.0'	118°02.0'	2100	240°	2	missing	slight	16.85 33.60
110.70-C	30	1310	28°33.5'	118°18.0'	2100+	300°	4	overcast	rough	16.93 33.67
110.75-C	30	1530	28°26.0'	118°36.0'	2150	310°	4	overcast	moderate	16.79 33.63
110.80-C	30	1815	28°14.5'	118°51.0'	2050	320°	4	overcast	moderate	16.82 33.68
110.85-C	30	2045	28°07.0'	119°11.0'	2000	310°	4	cloudy	rough	17.01 33.67
110.90-C	30	2345	27°57.5'	119°33.0'	2000	310°	4	cloudy	rough	17.12 33.68
113.30-C	29	1030	29°22.0'	115°16.0'	36	330°	2	overcast	smooth	14.50 33.45
113.35-C	29	0730	29°13.5'	115°37.5'	700	330°	4	cloudy	rough	15.93 33.42
113.40-C	29	0500	29°06.0'	115°58.5'	1050	340°	4	overcast	slight	15.69 33.44
113.45-C	29	0220	28°58.5'	116°17.0'	1000	320°	4	overcast	moderate	15.63 33.36
113.50-C	28	2335	28°49.0'	116°37.0'	1950	330°	4	overcast	moderate	15.82 33.43
113.55-C	28	2100	28°39.0'	116°55.0'	1950	320°	2	overcast	moderate	16.58 33.49
113.60-C	28	1820	28°27.0'	117°15.5'	2050	330°	3	overcast	moderate	16.59 33.52
113.65-C	28	1500	28°16.5'	117°35.5'	2250	320°	3	overcast	moderate	16.64 33.47
113.70-C	28	1230	28°06.0'	117°56.0'	2000	330°	4	overcast	rough	16.80 33.50
113.75-C	28	0930	27°55.5'	118°16.0'	2000+	330°	4	drizzle	rough	16.74 33.49
113.80-C	28	0630	27°43.0'	118°37.0'	2000	340°	4	missing	rough	17.00 33.63

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
117.26-C	V-25	1910	28°55.5'	114°41.0'	43	250°	4	cloudy	rough	-	33.64
117.30-C	25	2155	28°47.5'	114°56.0'	53	280°	4	squalls	rough	13.63	33.68
117.35-C	26	0050	28°38.0'	115°16.0'	93	290°	5	squalls	rough	15.66	33.44
117.40-C	27	0340	28°28.0'	115°35.5'	550	240°	2	missing	rough	15.97	33.49
117.45-C	27	0645	28°18.0'	115°56.0'	2000	320°	4	missing	moderate	15.92	33.44
117.50-C	27	0930	28°08.0'	116°16.0'	2025	340°	4	missing	moderate	15.82	33.40
117.55-C	27	1225	27°58.0'	116°36.0'	2000+	350°	4	missing	rough	16.34	33.51
117.60-C	27	1505	27°48.0'	116°56.5'	2000+	350°	4	overcast	rough	16.06	33.43
117.65-C	27	1740	27°36.0'	117°19.0'	2000	330°	4	overcast	rough	16.40	33.46
117.70-C	27	2000	27°28.0'	117°37.5'	2000	340°	3	cloudy	rough	16.06	33.42
117.75-C	27	2245	27°17.5'	117°56.5'	2000+	340°	4	cloudy	very rough	16.43	33.46
117.80-C	28	0100	27°08.5'	118°14.0'	2100	340°	-	cloudy	very rough	16.38	33.41
120.25-C	25	1330	28°23.0'	114°14.5'	32	310°	4	cloudy	moderate	15.83	33.62
120.27-C	25	1215	28°18.0'	114°24.0'	50	330°	4	drizzle	moderate	14.49	33.65
120.30-C	25	1030	28°14.0'	114°33.5'	54	350°	4	drizzle	moderate	14.66	33.63
120.35-C	25	0700	28°03.0'	114°54.0'	47	270°	2	missing	slight	15.08	33.64
120.40-C	25	0400	27°57.0'	115°14.0'	32	330°	3	overcast	moderate	14.15	33.67
120.45-C	25	0125	27°45.0'	115°35.0'	1150	320°	4	cloudy	moderate	14.58	33.54
120.50-C	24	2230	27°34.5'	115°53.0'	2100	320°	3	overcast	moderate	15.58	33.59

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
120.55-C	V-24	1935	27°24.0'	116°12.0'	2000+	320°	4	overcast	rough	15.96	-
120.60-C	24	1655	27°14.0'	116°32.0'	2050	320°	3	overcast	rough	17.20	33.64
120.70-C	24	1130	26°52.5'	117°11.0'	2100	320°	3	missing	slight	16.91	33.56
120.80-C	24	0630	26°32.5'	117°49.5'	2100	320°	4	overcast	slight	16.62	33.55
123.37-C	23	0640	27°24.0'	114°41.0'	39	310°	4	clear	moderate	12.16	33.87
123.40-C	23	0900	27°16.0'	114°51.5'	330	320°	4	clear	rough	14.96	33.56
123.45-C	23	1120	27°05.5'	115°11.5'	2300	310°	3	missing	rough	15.92	33.60
123.50-C	23	1420	26°54.0'	115°31.5'	1900	300°	3	overcast	moderate	17.29	33.56
123.55-C	23	1700	26°43.5'	115°49.5'	1950	330°	4	cloudy	rough	17.64	33.77
123.60-C	23	1955	26°33.0'	116°09.0'	2100	330°	3	cloudy	rough	17.23	33.58
127.34-C	22	2240	26°55.5'	114°07.0'	45	300°	3	clear	rough	13.14	33.69
127.40-C	22	1935	26°41.5'	114°27.5'	1600	300°	2	overcast	rough	16.21	33.58
127.45-C	22	1620	26°31.0'	114°48.0'	1900	290°	2	cloudy	moderate	16.14	33.60
127.50-C	22	1400	26°22.0'	115°07.5'	2000	300°	3	cloudy	moderate	15.70	33.63
127.55-C	22	1045	26°13.0'	115°26.5'	2000	330°	3	cloudy	slight	-	33.79
127.60-C	22	0755	26°04.0'	115°46.0'	2050	330°	4	cloudy	slight	17.64	33.65
130.30-C	21	1100	26°28.5'	113°28.5'	45	290°	2	missing	slight	12.68	33.90
130.35-C	21	1340	26°18.5'	113°48.0'	245	310°	4	overcast	moderate	15.82	33.53
130.40-C	21	1620	26°09.0'	114°06.5'	1240	320°	4	overcast	rough	15.78	33.63

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
130.50-C	V-21	2130	25°49.0'	114°46.0'	1950	320°	3	cloudy	rough	16.78	33.66
130.60-C	22	0220	25°29.0'	115°23.5'	1800	320°	4	cloudy	moderate	17.44	33.67
133.25-C	21	0530	26°04.0'	112°49.0'	46	300°	3	overcast	slight	14.16	33.74
133.30-C	21	0255	25°54.5'	113°07.0'	108	310°	3	overcast	moderate	13.50	33.63
133.40-C	20	2200	25°33.0'	113°40.5'	1800	300°	3	partly cloudy	moderate	16.14	33.58
133.50-C	19	1600	25°11.0'	114°26.0'	2050	330°	3	cloudy	rough	16.98	33.58
137.23-C	19	2130	25°34.0'	112°18.5'	43	290°	4	cloudy	moderate	15.51	33.94
137.30-C	20	0030	25°20.0'	112°43.5'	200	240°	3	cloudy	moderate	15.22	33.84
137.40-C	20	0530	24°59.0'	113°23.0'	1800	300°	3	overcast	smooth	16.14	33.57
137.50-C	20	1115	24°39.0'	114°03.0'	2050	330°	3	cloudy	slight	18.00	33.83

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5506

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

60.55

CREST; June 26, 1955; 0005 GCT; 37°47.5'N, 123°15'W; sounding, 60 fm; wind, 280°, force 2; weather, cloudy; sea, slight; wire angle, 00°.

0	10.22	33.92		193	0	10.22	33.92		26.09	193	0.00
11	10.02	33.90		191	10	10.07	33.90		26.10	192	0.02
15	9.84	33.91		188	20	9.80	33.91		26.15	187	0.04
20	9.80	33.91		187	30	9.84	33.92		26.15	187	0.06
25	9.82	33.91		187	50	8.87	33.88		26.28	175	0.09
30	9.84	33.92		187	75	8.89	33.90		26.29	174	0.14
35	9.82	33.94		185							
45	8.90	33.89		174							
56	8.88	33.87		176							
66	8.92	33.89		175							
81	8.86	33.90		173							

60.60

CREST; June 26, 1955; 0325 GCT; 37°36.5'N, 123°36'W; sounding, 1800 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 17°.

0	12.78	33.57	6.35	263	0	12.78	33.57	6.35	25.35	263	0.00
9	12.77	33.56	6.39	264	10	12.77	33.56	6.39	25.35	264	0.03
23	12.60	33.57	6.26	260	20	12.68	33.56	6.32	25.37	262	0.05
48	9.74	33.68	5.21	203	30	12.06	33.59	5.92	25.51	248	0.08
58	9.20	33.66	3.90	196	50	9.59	33.68	5.04	26.01	200	0.12
67	9.01	33.71	3.52	189	75	8.86	33.74	3.22	26.18	184	0.17
76	8.86	33.75	3.22	184	100	8.62	33.88	2.80	26.32	171	0.22
96	8.68	33.87	2.85	173	105	7.86	33.97	2.16	26.51	153	0.30
119	8.31	33.91	2.43	164	200	7.18	34.01	1.96	26.64	141	0.37
145	7.98	33.96	2.18	155	250	6.68	34.05	1.74	26.73	132	0.44
187	7.37	34.00	2.00	144	300	6.29	34.08	1.35	26.82	124	0.51
249	6.73	34.05	1.76	132	400	5.75	34.16	0.60	26.95	112	0.63
343	6.00	34.11	0.98	119	500	5.37	34.27	0.39	27.08	99	0.74
458	5.56	34.23	0.44	104	600	5.08	34.31	0.35	27.14	94	0.84
625	5.02	34.31	0.35	93	700	4.83	34.35	0.35	27.20	88	0.94
832	4.45	34.41	0.36	79	800	4.57	34.39	0.35	27.26	82	1.03
1125	3.63	34.49	0.62	65	1000	3.97	34.46	0.50	27.38	72	1.19

60.70

CREST; June 26, 1955; 0917 GCT; 37°14.5'N, 124°24'W; sounding, 2200 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 14°.

0	11.46	33.06	6.61	277	0	11.46	33.06	6.61	25.21	277	0.00
10	11.46	33.07	6.69	276	10	11.46	33.07	6.69	25.22	276	0.03
25	10.66	33.04	6.52	265	20	11.44	33.07	6.69	25.22	276	0.06
49	11.49	33.48	5.60	247	30	10.23	33.02	6.50	25.39	259	0.08
59	10.10	33.22	6.05	243	50	11.45	33.48	5.60	25.53	247	0.13
68	9.39	33.36	5.29	221	75	9.97	33.62	5.39	25.91	210	0.19
78	9.98	33.66	5.39	208	100	9.17	33.78	3.40	26.16	186	0.24
97	9.18	33.77	3.55	187	150	8.13	33.94	2.50	26.44	160	0.33
120	8.74	33.87	2.92	173	200	7.67	34.03	1.96	26.58	146	0.40
147	8.19	33.93	2.53	161	250	7.15	34.04	1.62	26.67	138	0.48
192	7.75	34.03	2.03	147	300	6.79	34.08	1.24	26.74	131	0.55
256	7.08	34.04	1.60	137	400	6.23	34.22	0.56	26.94	113	0.67
351	6.52	34.19	0.74	119	500	5.53	34.26	0.40	27.05	102	0.78
470	5.79	34.25	0.45	106	600	4.92	34.30	0.32	27.15	92	0.89
641	4.74	34.31	0.30	89	700	4.48	34.33	0.30	27.23	85	0.98
853	4.06	34.39	0.32	77	800	4.19	34.37	0.31	27.29	79	1.07
1148	3.24	34.49	0.68	62	1000	3.64	34.44	0.47	27.40	69	1.23

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

S10

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CREST; June 26, 1955; 1540, 1625 GCT; 36°53.5'N, 125°11'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 21°, 32°.

60.80

0	12.46	32.79	6.55	315	0	12.46	32.79	6.55	24.81	315	0.00
9	12.36	32.79	6.64	313	10	12.32	32.79	6.64	24.84	312	0.03
23	11.48	32.83	6.74	294	20	11.67	32.82	6.74	24.98	298	0.06
48	11.40	33.12	6.66	272	30	11.28	32.87	6.73	25.09	288	0.09
57	11.41	33.19	6.59	267	50	11.41	33.13	6.59	25.27	271	0.15
66	10.72	33.19	6.61	255	75	9.42	33.17	5.60	25.64	236	0.21
75	9.42	33.17	5.60	236	100	8.90	33.40	5.02	25.90	211	0.27
94	9.01	33.35	4.99	216	150	8.42	33.76	3.60	26.26	177	0.37
117	8.90	33.53	4.92	201	200	7.93	33.95	2.42	26.48	156	0.45
144	8.50	33.72	3.77	181	250	7.19	33.95	2.52	26.59	146	0.53
185	8.13	33.94	2.42	160	300	6.97	34.02	2.18	26.68	137	0.60
245	7.22	33.95	2.53	147	400	6.11	34.12	0.94	26.87	119	0.73
337	6.74	34.07	1.39	131	500	5.44	34.17	0.61	26.99	108	0.85
					600	5.01	34.24	0.48	27.09	98	0.96
421	5.98	34.14	0.81	116	700	4.77	34.32	0.45	27.18	89	1.06
576	5.14	34.21	0.49	101	800	4.53	34.39	0.46	27.27	81	1.15
771	4.62	34.36	0.45	85	1000	3.85	34.45	0.51	27.39	70	1.32
1055	3.65	34.47	0.54	67							

CREST; June 26, 1955; 2118, 2235 GCT; 36°38'N, 125°46'W; sounding, 2500 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 07°, 04°.

60.90

0	13.36	33.12	6.73	307	0	13.36	33.12	6.73	24.89	307	0.00
11	13.18	33.17	6.73	300	10	13.19	33.17	6.73	24.96	300	0.03
31	11.04	33.24	6.46	257	20	13.00	33.19	6.70	25.01	296	0.06
46	10.03	33.37	5.30	230	30	11.20	33.23	6.51	25.38	260	0.09
56	9.78	33.39	5.01	225	50	9.94	33.38	5.20	25.71	229	0.14
66	9.52	33.48	4.33	214	75	9.27	33.56	4.01	25.97	204	0.19
76	9.21	33.57	3.96	203	100	8.64	33.73	3.67	26.20	183	0.24
86	8.96	33.64	3.58	193	150	8.09	33.94	2.50	26.45	159	0.33
100	8.64	33.73	3.67	183	200	7.57	34.00	2.31	26.57	148	0.40
110	8.50	33.82	2.92	174	250	7.14	34.03	1.74	26.67	138	0.48
134	8.25	33.91	2.51	163	300	6.69	34.07	1.27	26.75	130	0.54
162	7.96	33.96	2.50	155	400	5.84	34.17	0.82	26.94	112	0.67
216	7.42	34.01	2.16	145	500	5.62	34.27	0.56	27.05	102	0.78
279	6.90	34.05	1.41	134	600	5.16	34.32	0.35	27.14	93	0.88
392	5.88	34.16	0.85	114	700	4.63	34.41	0.27	27.28	80	0.98
519	5.50	34.31	0.35	-	800	4.33	34.44	0.32	27.33	75	1.06
653	4.86	34.36	0.30	87	1000	3.84	34.49	0.44	27.42	67	1.22
					1200	3.38	34.51	0.65	27.48	62	
0a)	13.42	33.13	6.54	-	1500	2.76	34.56	0.98	27.58	52	
479	5.68	34.23	0.60	106	2000	2.04	34.61	1.67	27.68	42	
533	5.51	34.31	0.45	-							
591	5.20	34.32	0.37	94							
661	4.80	34.36	0.28	86							
734	4.55	34.42	0.27	79							
818	4.26	34.44	0.37	75							
907	4.06	34.47	0.37	70							
1004	3.82	34.49	0.45	67							
1118	3.55	34.50	0.60	63							
1246	3.29	34.51	0.73	60							
1383	3.00	34.56	0.87	54							
1541	2.70	34.56	1.01	51							
1719	2.40	34.58	1.23	47							
1918	2.16	34.61	1.51	43							
2136	1.98	34.62	1.86	41							
2376	1.82	34.63	2.07	39							

a) Overlapping casts; reconciliation of property curves when necessary.

S10

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5506

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

67.50

CREST; June 23, 1955; 1338 GCT; 36°49'N, 122°05.5'W; sounding, 60+ fm; wind, 330°, force 3; weather, clear; sea, slight; wire angle, 00°.

0	11.30	33.75	6.03	224	0	11.30	33.75	6.03	25.77	224	0.00
10	10.45	33.66	5.33	216	10	10.45	33.66	5.33	25.85	216	0.02
15	10.44	33.68	5.20	214	20	10.38	33.70	5.50	25.90	211	0.04
20	10.38	33.70	5.50	211	30	10.24	33.69	5.36	25.91	210	0.06
25	10.24	33.68	5.40	211	50	10.18	33.72	5.16	25.94	207	0.11
30	10.24	33.69	5.36	210							
35	10.24	33.68	5.35	211							
45	10.20	33.73	5.18	206							
55	10.14	33.70	5.15	208							
70	9.00	33.79	3.24	183							

67.55

CREST; June 23, 1955; 1651 GCT; 36°38'N, 112°28'W; sounding, 1240 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 18°.

0	12.51	33.53	6.16	262	0	12.51	33.53	6.16	25.37	262	0.00
9	12.50	33.50	6.16	263	10	12.48	33.50	6.16	25.35	263	0.03
28	12.39	33.50	6.16	261	20	12.43	33.50	6.16	25.36	262	0.05
43	11.66	33.58	5.74	242	30	12.36	33.50	6.14	25.38	260	0.08
52	10.03	33.75	4.05	203	50	10.22	33.74	4.27	25.95	206	0.12
62	9.58	33.78	3.46	193	75	9.27	33.86	3.02	26.20	183	0.17
71	9.37	33.86	3.19	183	100	9.04	33.92	2.40	26.28	175	0.22
80	9.20	33.86	2.77	181	150	8.84	34.02	1.70	26.40	164	0.31
95	9.08	33.89	2.63	177	200	8.29	34.14	1.60	26.57	147	0.38
103	9.04	33.92	2.23	174	250	7.82	34.16	1.33	26.66	139	0.46
126	8.88	33.96	2.08	169	300	7.41	34.18	1.00	26.74	132	0.53
153	8.82	34.02	1.59	164	400	6.85	34.25	0.67	26.87	119	0.66
202	8.28	34.14	1.60	147	500	6.20	34.29	0.48	26.98	108	0.78
262	7.70	34.16	1.25	137	600	5.42	34.33	0.38	27.11	96	0.88
367	7.02	34.23	0.72	123							
490	6.25	34.28	0.50	109							
622	5.24	34.34	0.34	93							

67.65

CREST; June 23, 1955; 2222 GCT; 36°23.5'N, 123°05.5'W; sounding, 1700 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 17°.

0	13.22	33.40	6.29	284	0	13.22	33.40	6.29	25.13	284	0.00
10	13.12	33.39	6.32	283	10	13.12	33.39	6.32	25.14	283	0.03
29	12.04	33.33	6.23	268	20	12.97	33.38	6.30	25.16	281	0.06
44	10.56	33.30	5.91	244	30	11.90	33.32	6.22	25.32	266	0.08
54	10.10	33.37	5.55	232	50	10.22	33.34	5.59	25.64	236	0.13
63	9.97	33.41	5.57	226	75	9.75	33.52	5.32	25.87	214	0.19
72	9.76	33.48	5.35	218	100	9.06	33.70	3.85	26.10	192	0.24
83	9.70	33.65	5.22	205	150	8.08	33.94	2.48	26.45	159	0.33
97	9.22	33.68	4.05	195	200	7.37	34.01	2.24	26.61	144	0.41
106	8.70	33.77	3.33	180	250	6.90	34.04	1.83	26.70	135	0.48
130	8.40	33.86	2.85	169	300	6.51	34.08	1.35	26.78	127	0.54
158	7.94	33.96	2.37	155	400	5.74	34.14	0.78	26.93	114	0.67
211	7.24	34.02	2.20	141	500	5.08	34.16	0.49	27.02	105	0.78
272	6.72	34.06	1.58	131	600	4.78	34.23	0.37	27.12	96	0.89
382	5.85	34.13	0.84	116							
508	5.02	34.16	0.47	104							
642	4.67	34.32	0.33	88							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

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CREST; June 22, 1955; 2228 GCT; 36°02.5'N, 122°02'W; sounding, 750 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 48°.

70.55

0	13.11	33.45	6.24	278	0	13.11	33.45	6.24	25.20	278	0.00
6	13.07	33.45	6.22	278	10	13.07	33.45	6.22	25.20	277	0.03
14	13.04	33.45	6.22	277	20	11.40	33.44	6.13	25.51	248	0.05
23	10.98	33.44	6.05	240	30	10.80	33.48	5.73	25.65	235	0.08
29	10.81	33.48	5.73	235	50	10.37	33.53	5.33	25.77	224	0.12
47	10.41	33.53	5.33	225	75	9.25	33.59	3.52	26.00	202	0.18
65	9.48	33.55	4.04	209	100	8.92	33.81	2.65	26.22	180	0.23
98	8.94	33.80	2.71	181	150	8.39	33.96	2.15	26.42	162	0.31
138	8.58	33.95	2.14	165	200	7.63	33.98	2.50	26.54	150	0.39
217	7.42	33.98	2.59	147	250	7.22	34.02	2.22	26.64	141	0.46
316	7.14	34.13	1.24	131	300	7.15	34.10	1.40	26.72	134	0.54

CREST; June 22, 1955; 1730 GCT; 35°50'N, 122°23'W; sounding, 1600 fm; wind, 330°, force 4; weather, fog; sea, moderate; wire angle, 31°.

70.60

0	13.22	33.33	5.95	290	0	13.22	33.33	5.95	25.07	290	0.00
8	13.18	33.33	6.05	288	10	13.14	33.33	6.05	25.10	287	0.03
21	13.04	33.37	6.02	283	20	13.04	33.37	6.04	25.14	284	0.06
49	11.24	33.37	5.79	247	30	12.93	33.37	6.01	25.17	280	0.09
57	10.76	33.36	5.42	243	50	11.15	33.37	5.76	25.50	249	0.14
66	10.30	33.36	5.16	235	75	10.12	33.42	4.86	25.72	228	0.20
77	10.08	33.44	4.72	226	100	9.32	33.58	3.88	25.98	203	0.25
93	9.63	33.58	4.17	209	150	8.39	33.91	2.50	26.38	165	0.35
114	8.99	33.60	3.65	197	200	7.88	34.04	2.10	26.56	148	0.43
135	8.57	33.80	2.83	176	250	7.22	34.10	1.90	26.70	135	0.50
178	8.16	34.00	2.20	155	300	6.77	34.12	1.43	26.79	127	0.56
242	7.36	34.09	1.96	138	400	6.03	34.19	0.78	26.93	113	0.69
333	6.50	34.14	1.15	123	500	5.54	34.27	0.42	27.06	101	0.80
457	5.76	34.23	0.55	106	600	5.20	34.33	0.33	27.15	93	0.90
624	5.18	34.34	0.31	92	700	4.86	34.38	0.31	27.22	86	1.00
839	4.30	34.43	0.38	76	800	4.50	34.42	0.32	27.29	79	1.09
1133	3.55	34.54	0.63	60	1000	3.89	34.48	0.49	27.41	68	1.25

CREST; June 22, 1955; 1200 GCT; 35°35'N, 123°01'W; sounding, 2200 fm; wind, 340°, force 5; weather, drizzle; sea, moderate; wire angle, 30°.

70.70

0	12.50	33.27	6.48	280	0	12.50	33.27	6.48	25.17	280	0.00
8	12.51	33.28	6.61	280	10	12.48	33.29	6.61	25.18	279	0.03
22	12.28	33.40	6.49	267	20	12.33	33.40	6.55	25.31	267	0.06
49	11.00	33.36	5.64	247	30	12.04	33.40	6.35	25.36	262	0.08
57	10.42	33.31	5.71	241	50	10.97	33.36	5.65	25.53	246	0.13
65	10.02	33.31	5.52	235	75	9.88	33.39	5.45	25.74	226	0.19
77	9.88	33.40	5.45	226	100	9.26	33.58	4.15	25.98	203	0.25
93	9.50	33.51	4.50	212	150	8.48	33.89	2.55	26.35	168	0.34
115	8.96	33.71	3.57	188	200	7.91	34.01	1.88	26.54	151	0.42
137	8.66	33.84	2.89	174	250	7.51	34.07	1.65	26.64	141	0.49
180	8.11	33.97	2.06	157	300	7.04	34.12	1.34	26.74	131	0.56
245	7.57	34.07	1.68	142	400	5.83	34.12	0.95	26.90	116	0.69
337	6.60	34.13	1.09	125	500	4.97	34.13	0.70	27.02	105	0.81
459	5.25	34.12	0.89	109	600	4.57	34.20	0.44	27.12	96	0.91
629	4.46	34.27	0.39	90	700	4.31	34.34	0.38	27.25	83	1.01
848	4.10	34.43	0.38	74	800	4.20	34.40	0.38	27.32	76	1.09
1149	3.39	34.52	0.71	60	1000	3.78	34.48	0.50	27.42	67	1.25

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

70.80

CREST; June 22, 1955; 0532 GCT; 35°13.5'N, 123°45'W; sounding, 2000+ fm; wind, 340°, force 4; weather, missing; sea, slight; wire angle, 17°.

0	14.48	33.30	6.14	316	0	14.48	33.30	6.14	24.79	316	0.00
15	14.18	33.30	6.16	310	10	14.25	33.30	6.14	24.84	312	0.03
39	13.92	33.30	6.12	305	20	14.10	33.30	6.14	24.88	308	0.06
49	13.11	33.28	6.32	291	30	14.02	33.30	6.13	24.89	307	0.09
59	12.50	33.30	6.27	278	50	13.04	33.28	6.32	25.07	290	0.15
68	11.92	33.33	6.13	264	75	11.60	33.35	6.03	25.40	258	0.22
88	11.02	33.40	5.69	244	100	10.55	33.42	5.23	25.66	234	0.28
112	10.04	33.45	4.70	225	150	9.03	33.76	3.59	26.17	186	0.39
139	9.30	33.69	3.69	195	200	8.05	33.96	3.19	26.48	156	0.48
186	8.24	33.91	3.38	163	250	7.48	34.03	2.54	26.61	144	0.55
225	7.82	34.01	2.79	150	300	6.83	34.07	2.00	26.73	132	0.62
251	7.44	34.03	2.52	144	400	5.88	34.16	0.91	26.92	114	0.75
348	6.32	34.11	1.33	122	500	5.35	34.22	0.52	27.05	102	0.86
471	5.46	34.21	0.58	105	600	4.89	34.28	0.37	27.14	93	0.97
642	4.76	34.31	0.32	89	700	4.54	34.34	0.31	27.23	85	1.06
856	4.03	34.43	0.31	74	800	4.20	34.41	0.31	27.32	76	1.15
1150	3.38	34.51	0.68	61	1000	3.70	34.48	0.44	27.43	66	1.31

70.90

CREST; June 21, 1955; 2059, 2230 GCT; 34°50.5'N, 124°32'W; sounding, 2400 fm; wind, 310°, force 2; weather, cloudy; sea, slight; wire angle, 00°, 04°.

0	14.63	33.29	6.08	320	0	14.63	33.29	6.08	24.75	320	0.00
10	14.33	33.28	6.02	314	10	14.33	33.28	6.02	24.81	314	0.03
31	14.24	33.26	6.00	314	20	14.27	33.27	6.02	24.81	314	0.06
46	14.17	33.26	5.94	312	30	14.24	33.27	6.00	24.81	314	0.09
56	13.90	33.30	6.12	304	50	14.08	33.28	5.98	24.86	310	0.16
66	13.50	33.27	6.31	299	75	13.01	33.30	6.27	25.10	287	0.23
76	12.96	33.30	6.25	286	100	11.40	33.28	5.78	25.38	260	0.30
85	12.34	33.26	6.13	278	150	9.62	33.54	4.25	25.90	211	0.42
99	11.42	33.28	5.78	261	200	8.37	33.87	3.19	26.35	168	0.52
110	10.94	33.28	5.64	252	250	7.70	33.98	2.55	26.54	150	0.60
135	10.18	33.49	4.82	224	300	7.31	34.02	2.10	26.63	142	0.67
163	9.20	33.58	3.88	202	400	6.47	34.14	0.90	26.84	122	0.81
217	8.11	33.94	2.92	159	500	5.68	34.17	0.51	26.96	110	0.93
280	7.46	34.00	2.36	146	600	5.02	34.27	0.36	27.12	96	1.04
392	6.57	34.14	0.96	123	700	4.79	34.32	0.28	27.18	90	1.14
520	5.40	34.18	0.46	-	800	4.45	34.40	0.30	27.28	80	1.23
653	4.88	34.31	0.29	91	1000	3.79	34.43	0.52	27.38	71	1.40
					1200	3.34	34.49	0.75	27.47	62	
0a)	14.72	33.30	6.06	-	1500	2.78	34.55	1.02	27.57	53	
472	5.98	34.20u	0.59	-	2000	2.05	34.58	1.58	27.66	44	
526	5.46	34.19	0.46	-							
585	5.13	34.25	0.42	98							
652	4.89	34.31	0.28	91							
725	4.74	34.33	0.29	88							
808	4.43	34.40	0.30	80							
897	4.10	34.40	0.35	76							
994	3.80	34.43	0.51	71							
1106	3.53	34.49	0.62	64							
1234	3.25	34.49	0.81	61							
1372	3.00	34.52	0.87	57							
1529	2.72	34.55	1.06	52							
1707	2.45	34.55	1.26	50							
1905	2.18	34.56	1.52	47							
2124	1.98	34.61	1.80	42							
2364	1.82	34.61	2.10	41							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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CREST; June 20, 1955; 1820 GCT; 35°18'N, 121°57'W; sounding, 1300 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 24°.

73.60

0	12.68	33.67	6.20	254	0	12.68	33.67	6.20	25.44	254	0.00
9	12.68	33.67	6.39	254	10	12.67	33.66	6.39	25.45	254	0.02
27	12.61	33.65	6.16	254	20	12.65	33.66	6.20	25.44	254	0.05
41	10.22	33.54	4.65	221	30	12.61	33.64	6.16	25.45	254	0.08
50	9.40	33.60	3.92	204	50	9.40	33.60	3.92	25.98	204	0.12
60	9.09	33.66	3.52	194	75	8.79	33.78	3.06	26.23	180	0.17
67	8.95	33.71	3.30	188	100	8.68	33.86	2.53	26.30	173	0.22
76	8.78	33.79	3.00	180	150	8.53	34.09	1.62	26.50	154	0.30
90	8.70	33.81	2.86	177	200	7.84	34.15	1.57	26.65	140	0.37
99	8.68	33.86	2.62	173	250	7.73	34.22	0.97	26.72	133	0.44
121	8.67	33.97	2.15	165	300	7.38	34.22	0.77	26.78	128	0.51
148	8.58	34.09	1.65	155	400	(6.61)	34.25	0.55	(26.90)	(116)	(0.63)
196	7.90	34.13	1.58	142	500	(6.05)	34.31	0.40	(27.03)	(104)	(0.75)
254	7.72	34.22	0.96	133	600	(5.56)	34.34	0.28	(27.11)	(96)	(0.85)
360	6.90	34.23	0.61	121							
483	7.66r	34.30	0.41	-							
614	5.44	34.35	0.26	94							

CREST; June 21, 1955; 0010 GCT; 34°57'N, 122°41'W; sounding, 2250 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 17°.

73.70

0	13.80	33.38	6.17	297	0	13.80	33.38	6.17	25.00	297	0.00
9	13.72	33.37	6.32	296	10	13.71	33.37	6.32	25.01	296	0.03
28	12.86	33.44	6.44	274	20	13.65	33.40	6.42	25.10	287	0.06
44	11.28	33.31	6.01	256	30	12.84	33.44	6.43	25.24	274	0.09
53	11.46	33.42	6.28	250	50	11.39	33.40	6.02	25.48	251	0.14
62	11.34	33.51	6.00	242	75	10.96	33.53	5.78	25.66	234	0.20
71	11.11	33.55	5.91	235	100	9.35	33.54	4.13	25.94	208	0.26
81	10.40	33.44	5.25	231	150	8.45	33.92	2.66	26.38	166	0.35
94	9.62	33.53	4.30	212	200	7.85	34.00	2.14	26.54	150	0.43
105	9.08	33.55	4.03	203	250	7.20	34.08	1.71	26.69	136	0.50
126	8.72	33.77	3.04	180	300	6.75	34.10	1.41	26.76	129	0.57
154	8.40	33.92	2.61	165	400	6.04	34.14	0.91	26.89	117	0.70
204	7.80	34.01	2.11	150	500	5.43	34.23	0.57	27.04	103	0.81
264	7.04	34.09	1.62	134	600	4.98	34.27	0.34	27.12	95	0.92
371	6.24	34.11	1.05	122							
493	5.54	34.22	0.60	105							
626	4.82	34.28	0.28	93							

CREST; June 21, 1955; 0535, 0632 GCT; 34°38'N, 123°22'W; sounding, 2100 fm; wind, 330°, force 5; weather, cloudy; sea, moderate; wire angle, 05°, 05°.

73.80

0	13.52	33.28	5.65	298	0	13.52	33.28	5.65	24.98	298	0.00
10	13.52	33.29	6.30	298	10	13.52	33.29	6.30	24.99	298	0.03
30	13.48	33.30	-	296	20	13.51	33.30	6.30	25.00	297	0.06
45	13.32	33.29	6.19	294	30	13.48	33.30	6.30	25.00	296	0.09
54	10.84	33.35	5.44	245	50	11.68	33.32	5.65	25.37	262	0.14
64	10.52	33.35	5.18	240	75	10.20	33.37	4.90	25.67	233	0.21
74	10.23	33.37	4.93	234	100	9.54	33.52	4.09	25.90	211	0.26
85	9.96	33.42	4.36	225	150	8.41	33.86	2.80	26.33	170	0.36
98	9.58	33.51	4.14	213	200	8.08	34.03	2.37	26.52	152	0.44
109	9.30	33.63	3.66	200	250	7.40	34.05	2.03	26.64	141	0.52
132	8.62	33.78	-	179	300	6.77	34.05	1.83	26.72	133	0.58
					400	6.20	34.16	0.73	26.88	118	0.71
164	8.37	33.89	2.76	166	500	5.79	34.27	0.36	27.03	104	0.83
217	7.96	34.05	2.18	149	600	5.39	34.33	0.30	27.13	95	0.94
279	6.96	34.04	1.96	136							
393	6.23	34.15	0.82	119							
520	5.70	34.29	0.33	102							
654	5.03	34.36	0.29	89							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

73.90

CREST; June 21, 1955; 1147, 1336, 1434 GCT; 34°18'N, 124°04'W; sounding, 2100 fm; wind, 340°, force 3; weather, drizzle; sea, slight; wire angle, 11°, 19°, 26°.

0	14.25	33.37	6.16	306	0	14.25	33.37	6.16	24.90	306	0.00
10	14.26	33.39	6.12	305	10	14.26	33.39	6.12	24.91	305	0.03
30	12.98	33.46u	6.40	-	20	14.25	33.39	6.12	24.92	305	0.06
40	12.52	33.23	6.33	284	30	12.98	33.28	6.40	25.08	289	0.09
49	11.61	33.33	6.15	260	50	11.60	33.33	6.14	25.39	260	0.14
59	11.30	33.37	5.83	252	75	10.45	33.34	5.23	25.60	239	0.21
68	10.83	33.39	5.63	242	100	9.67	33.55	4.08	25.90	211	0.26
77	10.37	33.33	5.14	238	150	8.48	33.86	2.15	26.33	170	0.36
87	9.91	33.48	4.60	220	200	7.83	33.98	1.93	26.52	152	0.44
96	9.72	33.53	4.18	214	250	7.06	34.04	1.27	26.68	137	0.52
119	9.34	33.76	3.65	190	300	6.55	34.08	0.69	26.78	128	0.58
148	8.50	33.86	2.17	171	400	6.00	34.12	0.32	26.89	117	0.71
196	7.88	33.98	1.96	153	500	5.38	34.19	0.35	27.01	106	0.83
250	7.06	34.04	1.27	137	600	4.90	34.25	0.34	27.11	96	0.93
350	6.20	34.10	0.38	122	700	4.60	34.35	0.32	27.23	85	1.03
463	5.58	34.20	0.32	-	800	4.27	34.39	0.35	27.30	79	1.12
582	4.95	34.31r	2.60r	-	1000	3.74	34.43	0.40	27.39	70	1.28
					1200	3.27	34.48	0.80	27.46	63	
0a)	14.18	33.39	6.21	-	1500	2.77	34.53	1.10	27.56	54	
452	5.62	34.16	0.59u	111	2000	2.11	34.58	1.68	27.65	45	
504	5.38	34.19	0.46u	106							
559a)	5.08	34.22	0.35	100							
624	4.81	34.27	0.32	94							
691	4.66	34.34	0.30	86							
765	4.37	34.37	0.35	81							
848	4.15	34.42	0.37	75							
936	3.86	34.43	0.36	71							
1040	3.65	34.49u	0.77r	-							
1158	3.39	34.47	0.75	64							
1285	3.12	34.49	0.91	60							
1434	2.86	34.53	1.04	55							
1604	2.58	34.54	1.25	52							
1796	2.28	34.58	1.52	46							
2011	2.11	34.58	3.38r	45							
2250	1.94	34.60	1.93	42							

77.50

CREST; June 20, 1955; 0659 GCT; 35°04.5'N, 120°53'W; sounding, 60 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 09°.

0	11.40	33.72	5.65	228	0	11.40	33.72	5.65	25.72	228	0.00
10	11.40	33.71	5.57	228	10	11.40	33.71	5.57	25.72	228	0.02
15	11.40	33.75	5.60	225	20	11.36	33.76	5.62	25.77	223	0.04
20	11.36	33.76	5.62	223	30	11.11	33.75	4.46	25.80	220	0.07
25	11.31	33.75	4.97	224	50	10.61	33.76	4.76	25.90	211	0.11
30	11.11	33.75	4.46	220	75	9.46	33.91	2.45	26.21	181	0.16
36	11.02	33.78	5.49	217	100	9.20	33.95	2.30	26.29	174	0.20
46	10.72	33.76	5.05	213							
56	10.46	33.78	3.90	207							
65	9.92	33.86	3.03	192							
80	9.37	33.93	2.34	178							
100	9.20	33.95	2.30	174							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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CREST; June 20, 1955; 0354 GCT; 34°53'N, 121°12'W; sounding, 320 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

77.55

0	12.52	33.69	6.66	250	0	12.52	33.69	6.66	25.49	250	0.00
9	12.46	33.70	6.69	248	10	12.45	33.70	6.68	25.52	248	0.02
28	12.40	33.70	6.60	247	20	12.42	33.70	6.65	25.52	248	0.05
37	11.28	33.66	5.82	230	30	12.39	33.66	6.58	25.67	233	0.07
47	10.84	33.66	5.45	223	50	10.65	33.67	5.19	25.82	219	0.12
56	10.16	33.72	4.00	206	75	9.63	33.78	2.95	26.08	194	0.17
67	9.84	33.76	3.17	199	100	9.11	33.93	2.38	26.29	174	0.22
76	9.60	33.78	2.93	193	150	8.85	34.09	1.98	26.45	158	0.30
85	9.26	33.86	2.56	182	200	8.39	34.16	1.26	26.57	147	0.38
95	9.12	33.91	2.45	176	250	7.92	34.19	1.02	26.67	138	0.45
114	9.04	33.98	2.31	170	300	7.50	34.21	0.84	26.75	130	0.52
138	8.90	34.04	2.07	163	400	7.02	34.24	0.60	26.84	122	0.65
157	8.84	34.11	1.81	157	500	(6.12)	(34.30)	(0.48)	(27.01)	(106)	(0.77)
193	8.48	34.15	1.32	149							
271	7.76	34.20	0.95	135							
370	7.20	34.23	0.65	125							
484	6.27	34.29	0.50	109							

CREST; June 19, 1955; 2148 GCT; 34°32'N, 121°51.5'W; sounding, 2200 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 39°.

77.65

0	13.94	33.38	6.04	299	0	13.94	33.38	6.04	24.97	299	0.00
8	13.90	33.40	6.22	297	10	13.90	33.40	6.22	25.00	296	0.03
25	13.82	33.40	6.25	296	20	13.85	33.40	6.25	25.01	296	0.06
37	13.68	33.35	6.16	297	30	13.77	33.39	6.22	25.01	296	0.09
45	13.34	33.35	6.21	290	50	12.58	33.31	6.00	25.20	278	0.15
52	12.30	33.30	5.91	274	75	11.10	33.36	5.53	25.51	248	0.21
58	11.73	33.26	5.80	267	100	10.12	33.53	4.69	25.81	220	0.27
64	11.72	33.33	5.57	262	150	8.42	33.84	2.83	26.32	171	0.37
74	11.16	33.36	5.56	250	200	7.99	33.96	2.34	26.48	156	0.45
78	10.90	33.39	5.16	243	250	7.53	34.06	1.91	26.62	142	0.53
95	10.30	33.50	4.82	225	300	7.10	34.09	1.51	26.72	134	0.60
112	9.63	33.60	3.96	208	400	6.52	34.12	0.93	26.82	124	0.73
144	8.52	33.81	2.92	175	500	6.00	34.20	0.58	26.95	112	0.86
189	8.04	33.95	2.40	158							
277	7.28	34.08	1.68	137							
388	6.59	34.12	0.98	125							
514	5.92	34.22	0.50	109							

CREST; June 19, 1955; 1300 GCT; 34°02'N, 122°54.5'W; sounding, 2400 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

77.80

0	14.50	33.45	6.16	306	0	14.50	33.45	6.16	24.91	306	0.00
10	14.49	33.46	6.19	305	10	14.49	33.46	6.19	24.91	305	0.03
28	14.52	33.46	6.14	305	20	14.50	33.46	6.14	24.91	305	0.06
42	14.51	33.46	6.30	305	30	14.52	33.46	6.20	24.91	305	0.09
50	13.64	33.40	5.85	292	50	13.64	33.40	5.85	25.05	292	0.15
58	12.46	33.42	5.54	268	75	10.45	33.49	4.80	25.71	229	0.22
67	11.00	33.44	5.22	241	100	9.40	33.61	4.03	25.98	203	0.27
75	10.45	33.49	4.80	229	150	8.53	33.93	3.03	26.38	166	0.36
88	9.73	33.55	4.22	212	200	8.02	34.02	2.25	26.52	152	0.44
97	9.46	33.59	4.10	205	250	7.57	34.08	1.92	26.64	141	0.52
116	9.06	33.75	3.37	187	300	7.13	34.13	1.50	26.74	131	0.59
140	8.62	33.89	3.17	171	400	6.40	34.22	0.80	26.91	115	0.72
183	8.19	33.99	2.40	157	500	5.84	34.29	0.47	27.03	104	0.83
234	7.70	34.07	2.02	144							
328	6.88	34.16	1.29	126							
441	6.14	34.26	0.60	109							
567	5.44	34.32	0.35	97							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

77.90

CREST; June 19, 1955; 0505, 0630 GCT; 33°45'N, 123°37'W; sounding, 2400 fm; wind, 350°, force 5; weather, missing; sea, rough; wire angle, 27°, 34°.

0	14.00	33.31	6.21	306	0	14.00	33.31	6.21	24.90	306	0.00
9	14.00	33.32	6.18	305	10	14.00	33.32	6.17	24.91	305	0.03
27	14.00	33.30	6.12	306	20	14.00	33.31	6.09	24.90	306	0.06
40	14.00	33.32	6.12	305	30	14.00	33.30	6.05	24.90	306	0.09
49	13.99	33.31	6.13	306	50	13.99	33.31	6.03	24.90	306	0.15
58	14.00	33.31	6.06	306	75	13.63	33.28	5.63	24.96	301	0.23
67	13.88	33.32	6.11	302	100	12.10	33.30	5.75	25.26	272	0.30
76	13.58	33.27	5.60	300	150	9.23	33.59	4.07	26.00	202	0.42
90	12.92	33.33	5.98	284	200	8.12	33.87	3.30	26.39	164	0.51
99	12.23	33.30	5.80	274	250	7.38	33.97	3.12	26.58	147	0.59
122	10.37	33.31	5.27	240	300	6.78	34.02	2.28	26.70	135	0.67
144	9.40	33.53	4.28	208	400	6.08	34.07	1.00	26.83	123	0.80
188	8.36	33.82	3.35	171	500	5.38	34.22	0.48	27.04	103	0.92
236	7.55	33.96	3.18	150	600	5.05	34.30	0.30	27.14	94	1.02
327	6.52	34.04	1.74	130	700	4.82	34.34	0.30	27.20	88	1.13
437	5.73	34.13	0.75	114	800	4.46	34.42	0.33	27.30	78	1.21
561	5.16	34.24	0.38	-	1000	3.90	34.49	0.45	27.41	68	1.37
					1200	3.33	34.56	0.75	27.53	57	
0a)	14.08	33.30	6.30	-	1500	2.78	34.60	1.14	27.61	49	
397	6.12	34.07	1.02	123	2000	2.17	34.65	1.88	27.70	40	
446	5.73	34.16	0.74	112							
496	5.40	34.22	0.47	103							
555	5.17	34.26	0.34	-							
618	5.02	34.31	0.28	93							
690	4.83	34.42u	0.33	-							
766	4.59	34.37	0.33	83							
851	4.36	34.44	0.34	76							
950	4.01	34.47	0.38	70							
1062	3.71	34.52	0.53	63							
1184	3.37	34.56	0.72	57							
1323	3.07	34.58	0.86	53							
1481	2.79	34.60	1.05	49							
1662	2.54	34.63	1.23	45							
1863	2.28	34.63	1.72	43							
2101	2.00	34.67	1.89	38							

80.51

CREST; June 17, 1955; 1948 GCT; 34°26.5'N, 120°33'W; sounding, 60 fm; wind, 320°, force 5; weather, clear; sea, moderate; wire angle, 06°.

0	11.20	33.61	4.42	232	0	11.20	33.61	4.42	25.68	232	0.00
12	11.17	33.64	4.29	229	10	11.17	33.64	4.30	25.70	230	0.02
17	11.16	33.63	4.23	230	20	11.09	33.63	4.25	25.72	229	0.05
22	11.08	33.64	4.35	228	30	11.05	33.67	4.31	25.75	226	0.07
28	11.08	33.66	4.31	226	50	9.75	33.75	3.02	26.04	198	0.11
34	10.85	33.73	4.07	217	75	9.37	33.87	2.47	26.20	183	0.16
40	9.96	33.72	3.16	203	100	9.17	33.98	2.00	26.31	172	0.20
50	9.75	33.75	3.02	198							
61	9.60	33.79	2.88	193							
71	9.44	33.84	2.54	186							
87	9.20	33.95	2.19	174							
107	9.16	33.98	1.98	171							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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CREST; June 17, 1955; 2236 GCT; 34°19'N, 120°48'W; sounding, 400 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 18°.

80.55

0	12.24	33.74	5.22	241	0	12.24	33.74	5.22	25.58	241	0.00
11	12.07	33.70	5.31	241	10	12.07	33.71	5.30	25.58	241	0.02
31	11.64	33.69	5.06	234	20	11.90	33.69	5.30	25.61	238	0.05
46	10.69	33.75	3.81	213	30	11.68	33.69	5.08	25.65	235	0.07
56	10.13	33.78	3.31	201	50	10.41	33.77	3.57	25.94	208	0.12
66	9.76	33.78	2.88	196	75	9.69	33.81	2.81	26.10	192	0.17
76	9.65	33.81	2.81	192	100	9.18	33.92	2.38	26.27	176	0.21
86	9.31	33.88	2.54	181	150	8.80	34.14	1.61	26.50	154	0.30
100	9.18	33.92	2.38	176	200	8.58	34.21	0.93	26.59	146	0.37
110	9.09	33.95	2.26	173	250	8.27	34.24	0.68	26.65	140	0.44
135	8.84	34.09	1.84	159	300	7.90	34.28	0.61	26.75	130	0.51
164	8.76	34.20	1.32	149	400	7.04	34.29	0.70	26.88	118	0.64
217	8.48	34.22	0.84	144	500	6.43	34.33	0.40	26.99	108	0.76
280	8.06	34.27	0.60	134	600	5.84	34.36	0.33	27.09	98	0.87
391	7.13	34.29	0.72	119							
519	6.38	34.34	0.40	106							
653	5.43	34.36	0.31	93							

CREST; June 18, 1955; 0235 GCT; 34°08.5'N, 121°09'W; sounding, 1100 fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 27°.

80.60

0	13.47	33.63	6.38	272	0	13.47	33.63	6.38	25.26	272	0.00
10	13.46	33.63	6.38	272	10	13.46	33.63	6.38	25.26	272	0.03
25	13.46	33.61	6.75	273	20	13.46	33.61	6.60	25.25	273	0.05
54	10.61	33.73	4.66	213	30	13.19	33.62	6.68	25.30	268	0.08
63	10.34	33.73	4.38	209	50	10.97	33.72	4.99	25.81	219	0.13
74	9.78	33.77	3.60	196	75	9.72	33.77	3.54	26.06	196	0.18
88	9.29	33.80	3.16	187	100	8.96	33.86	2.80	26.26	177	0.23
106	9.17	33.95	2.12	174	150	8.31	34.04	2.30	26.49	155	0.31
130	8.77	34.01	2.21	163	200	7.68	34.02	2.07	26.57	147	0.39
156	8.20	34.04	2.30	153	250	7.37	34.11	1.39	26.69	136	0.46
205	7.61	34.02	2.00	146	300	7.14	34.20	0.90	26.79	126	0.53
278	7.23	34.18	0.99	129	400	6.56	34.24	0.66	26.90	116	0.65
377	6.67	34.23	0.70	118	500	6.07	34.28	0.40	27.00	106	0.77
508	6.06	34.29	0.38	106	600	5.53	34.34	0.32	27.12	96	0.88
686	5.08	34.39	0.32	88	700	5.02	34.39	0.32	27.21	87	0.97
912	4.21	34.45	0.46	73	800	4.68	34.42	0.34	27.28	80	1.06
1213	3.35	34.54	0.85	58	1000	3.97	34.47	0.56	27.39	70	1.23

CREST; June 18, 1955; 0900 GCT; 33°48.5'N, 121°53.5'W; sounding, 2000+ fm; wind, 340°, force 6; weather, clear; sea, rough; wire angle, 35°.

80.70

0	14.24	33.35	6.02	308	0	14.24	33.35	6.02	24.88	308	0.00
8	14.26	33.37	6.07	307	10	14.26	33.38	6.07	24.90	306	0.03
25	14.28	33.40	5.96	305	20	14.28	33.40	5.98	24.91	305	0.06
38	13.58	33.38	6.38	293	30	14.26	33.40	5.98	24.92	304	0.09
46	12.79	33.37	6.38	277	50	12.58	33.36	6.35	25.23	275	0.15
53	12.44	33.36	6.31	273	75	11.81	33.45	5.83	25.44	254	0.22
62	12.23	33.39	6.31	267	100	10.74	33.45	5.30	25.64	236	0.28
71	11.98	33.44	6.01	258	150	9.19	33.76	3.40	26.14	188	0.39
83	11.35	33.45	5.64	246	200	8.30	33.97	2.57	26.44	160	0.47
91	11.02	33.44	5.52	242	250	7.77	34.06	1.95	26.59	146	0.55
112	10.34	33.53	4.66	224	300	7.11	34.06	1.55	26.69	136	0.62
137	9.51	33.71	-	197	400	6.20	34.15	0.86	26.88	118	0.76
182	8.58	33.90	2.82	168	500	5.69	34.26	0.46	27.03	104	0.87
237	7.90	34.05	2.03	148							
336	6.66	34.07	1.32	130							
451	5.96	34.20	0.61	111							
575	5.36	34.32	0.35	95							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

80.80

CREST; June 18, 1955; 1450 GCT; 33°29'N, 122°37'W; sounding, 2000+ fm; wind, 060°, force 5; weather, cloudy; sea, rough; wire angle, 22°.

0	14.02	33.31	6.10	306	0	14.02	33.31	6.10	24.90	306	0.00
10	14.02	33.35	6.26	303	10	14.02	33.35	6.26	24.93	303	0.03
24	14.02	33.33	6.21	305	20	14.02	33.34	6.21	24.92	304	0.06
52	12.54	33.39	6.23	272	30	14.02	33.36	6.21	24.94	302	0.09
60	12.17	33.37	6.09	266	50	12.80	33.40	6.23	25.21	276	0.15
70	11.69	33.42	5.49	255	75	11.59	33.42	5.49	25.46	253	0.22
86	11.31	33.42	5.52	248	100	10.86	33.42	5.39	25.60	240	0.28
104	10.67	33.43	5.22	237	150	9.40	33.79	2.92	26.13	189	0.38
126	9.78	33.62	3.96	208	200	8.69	33.94	2.24	26.36	168	0.48
157	9.30	33.83	2.71	185	250	8.07	34.03	1.88	26.53	152	0.56
209	8.56	33.96	2.17	164	300	7.58	34.11	1.53	26.65	140	0.63
285	7.74	34.09	1.61	142	400	6.65	34.18	(0.84)	26.84	121	0.77
390	6.76	34.18	0.89	123	500	5.93	34.22	(0.51)	26.96	110	0.89
529	5.72	34.23	-	106	600	5.41	34.26	(0.34)	27.07	100	1.00
716	4.96	34.37	0.26	87	700	4.99	34.36	(0.27)	27.19	89	1.10
948	4.18	34.43	0.42	74	800	4.65	34.40	0.30	27.26	82	1.19
1253	3.34	34.54	0.56	58	1000	4.04	34.44	0.46	27.36	73	1.36

80.90

CREST; June 18, 1955; 2028, 2202 GCT; 33°13'N, 123°13.5'W; sounding, 2400 fm; wind, 360°, force 5; weather, missing; sea, rough; wire angle, 24°, 40°.

4	14.16	33.37	6.17	305	0	(14.16)	(33.37)	(6.17)	(24.92)	(305)	(0.00)
22	14.12	33.37	6.13	304	10	14.15	33.37	6.15	24.92	304	0.03
35p	13.58	33.36	6.24	294	20	14.15	33.37	6.15	24.92	304	0.06
45p	12.62	33.36	6.13	276	30	14.08	33.37	6.12	24.94	303	0.09
54p	12.33	33.37	6.02	270	50	12.46	33.36	6.09	25.25	272	0.14
64p	11.97	33.42	5.83	260	75	11.38	33.40	5.58	25.48	251	0.21
72p	11.56	33.40	5.68	253	100	10.58	33.46	4.79	25.68	232	0.28
86p	10.98	33.40	4.79	243	150	9.28	33.81	2.97	26.16	186	0.38
95p	10.74	33.44	4.80	237	200	8.61	34.00	1.93	26.42	162	0.47
119p	9.90	33.58	4.25	213	250	7.89	34.06	1.91	26.58	147	0.55
147p	9.28	33.80	2.99	187	300	7.38	34.11	1.66	26.68	137	0.62
197p	8.62	34.00	1.94	162	400	6.70	34.20	0.71	26.86	120	0.75
258p	7.78	34.07	1.89	144	500	6.00	34.23	0.45	26.97	110	0.87
365p	6.92	34.17	0.88	126	600	5.30	34.33	0.26	27.13	94	0.98
489p	6.00	34.23	0.45	110	700	4.95	34.35	0.27	27.19	89	1.08
618p	5.24	34.33	0.28	94	800	4.49	34.40	0.32	27.28	80	1.17
					1000	3.84	34.48	0.42	27.42	67	1.33
382a)	6.90	34.18	-	-	1200	3.35	34.49	0.65	27.47	62	
429	6.44	34.22	0.59	116	1500	2.77	34.56	1.08	27.58	52	
476	6.00	34.22	0.43	110	2000	2.11					
534	5.88	34.23	0.36	-							
595	5.39	34.31	0.26	96							
666	5.07	34.34	0.23	91							
741	4.75	34.38	0.30	84							
825	4.42	34.41	0.32	79							
921	4.06	34.45	0.38	72							
1032	3.76	34.49	0.49	66							
1151	3.46	34.49	0.60	63							
1288	3.17	34.56u	0.82	-							
1447	2.88	34.51u	0.99	-							
1622	2.58	34.58	1.24	49							
1823	2.32	34.63	1.63	43							
2054	2.06	34.51r	1.68u	-							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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CREST; June 16, 1955; 1254 GCT; 34°13.5'N, 119°22'W; sounding, 13 fm; wind, 270°, force 1; weather, partly cloudy; sea, slight; wire angle, 07°.

83.40

0	15.40	33.60	5.86	313	0	15.40	33.60	5.86	24.82	313	0.00
5	15.47	33.65	5.91	311	10	13.66	33.55	5.35	25.16	281	0.03
10	13.66	33.55	5.35	281	20	11.91	33.56	4.56	25.51	248	0.06
15	12.01	33.55	4.77	251							
20	11.91	33.56	4.56	248							

CREST; June 16, 1955; 1059 GCT; 34°07.5'N, 119°34'W; sounding, 130 fm; wind, 270°, force 6; weather, missing; sea, rough; wire angle, 07°.

83.43

0	14.41	33.66	5.99	289	0	14.41	33.66	5.99	25.08	289	0.00
10	14.45	33.68	5.75	288	10	14.45	33.68	5.75	25.09	288	0.03
15	14.43	33.68	6.14	288	20	14.41	33.68	6.12	25.10	288	0.06
20	14.41	33.68	6.12	288	30	14.39	33.70	6.15	25.12	285	0.09
25	14.40	33.68	6.02	287	50	11.09	33.57	4.02	25.68	232	0.14
30	14.39	33.70	6.15	285							
35	14.31	33.67	6.10	285							
45	12.22	33.55	4.89	255							
55	10.32	33.60	3.44	218							
69	9.62	33.73	2.93	197							

CREST; June 15, 1955; 2224 GCT; 33°32'N, 120°45'W; sounding, 1100 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 36°.

83.60

0	13.86	33.40	6.42	296	0	13.86	33.40	6.42	25.00	296	0.00
9	13.85	33.46	6.21	292	10	13.85	33.46	6.22	25.05	292	0.03
25	13.70	33.44	6.24	290	20	13.76	33.45	6.23	25.06	291	0.06
37	12.25	33.39	6.38	267	30	13.35	33.42	6.29	25.12	285	0.09
46	12.16	33.51	4.52	256	50	11.99	33.49	4.39	25.44	254	0.14
53	11.30	33.40	4.18	249	75	10.26	33.51	4.50	25.77	224	0.20
61	10.76	33.45	4.39	236	100	9.32	33.67	3.57	26.05	197	0.26
69	10.46	33.51	4.95u	227	150	8.27	33.91	3.00	26.40	164	0.34
82	9.98	33.51	4.52	219	200	7.79	34.02	2.59	26.56	148	0.42
90	9.56	33.58	4.03	206	250	7.06	34.06	2.33	26.69	136	0.50
109	9.16	33.71	3.26	191	300	6.67	34.10	1.78	26.78	128	0.56
131	8.53	33.82	3.23	174	400	6.35	34.22	0.77	26.91	115	0.69
173	8.13	33.98	2.70	156	500	6.08	34.29	0.40	27.01	106	0.80
223	7.40	34.04	2.52	142							
316	6.58	34.11	1.57	126							
425	6.28	34.25	0.58	112							
542	5.81	34.32	0.31	101							

CREST; June 15, 1955; 1440 GCT; 33°13'N, 121°28'W; sounding, 2200 fm; wind, 350°, force 5; weather, cloudy; sea, rough; wire angle, 10°.

83.70

0	14.06	33.45	6.42	296	0	14.06	33.45	6.42	25.00	296	0.00
10	14.04	33.46	6.37	296	10	14.04	33.46	6.37	25.01	296	0.03
31	11.82	33.40	6.24	258	20	13.60	33.45	6.33	25.09	288	0.06
46	11.12	33.47	5.65	241	30	11.93	33.40	6.27	25.38	260	0.09
56	10.82	33.45	5.62	237	50	11.04	33.46	5.64	25.60	240	0.14
65	10.08	33.44	5.07	226	75	9.72	33.42	4.69	25.79	222	0.19
75	9.72	33.42	4.69	222	100	9.38	33.76	3.84	26.11	192	0.25
84	9.98	33.71	4.68	204	150	8.55	34.06	2.27	26.48	156	0.33
99	9.40	33.76	3.84	192	200	7.80	34.08	2.22	26.61	144	0.41
110	9.16	33.86	3.38	180	250	7.20	34.11	2.05	26.71	134	0.48
133	8.84	34.04	2.38	162	300	6.58	34.15	1.49	26.82	123	0.54
161	8.36	34.07	2.24	153	400	5.86	34.16	0.87	26.93	114	0.67
214	7.62	34.09	2.21	141	500	5.39	34.28	0.49	27.08	99	0.78
276	6.82	34.14	1.74	127	600	5.04	34.39	0.46	27.21	87	0.88
388	5.94	34.16	0.91	114							
514	5.30	34.31	0.46	96							
647	4.97	34.42	0.48	84							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

83.80

CREST; June 15, 1955; 0738 GCT; 32°54'N, 122°07.5'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 15°.

0	13.28	33.50	6.48	278	0	13.28	33.50	6.48	25.20	278	0.00
24	13.15	33.49	6.46	276	10	13.26	33.50	6.48	25.20	277	0.03
38	12.48	33.68	5.92	250	20	13.19	33.49	6.47	25.21	276	0.06
48	12.25	33.58	5.96	253	30	12.95	33.53	6.38	25.28	270	0.08
57	11.56	33.64	5.51	236	50	12.24	33.58	5.96	25.46	253	0.14
66	11.48	33.71	5.24	230	75	10.43	33.72	4.62	25.90	211	0.19
74	10.48	33.72	4.65	212	100	9.41	33.73	3.62	26.08	194	0.24
89	9.83	33.72	3.82	202	150	8.15	33.88	3.04	26.39	165	0.33
98	9.46	33.73	3.64	195	200	7.49	34.02	2.41	26.60	144	0.41
121	8.66	33.84	2.93	174	250	7.00	34.02	1.98	26.67	138	0.48
148	8.19	33.87	3.03	165	300	6.67	34.14	1.42	26.82	124	0.55
199	7.49	34.02	2.41	144	400	6.43	34.28	0.47	26.95	112	0.67
260	6.87	34.02	1.87	137	500	5.84	34.32	0.44	27.06	101	0.78
369	6.57	34.25	0.49	115	600	5.27	34.33	0.52	27.13	94	0.89
494	5.86	34.32	0.44	101							
631	5.04	34.33	0.56	92							

83.90

CREST; June 14-15, 1955; 2242, 0014 GCT; 32°32'N, 122°46'W; sounding, 2250 fm; wind, 350°, force 3; weather, cloudy; sea, moderate; wire angle, 25°, 30°.

0	14.26	33.31	6.08	311	0	14.26	33.31	6.08	24.85	311	0.00
9	14.16	33.31	6.13	309	10	14.11	33.31	6.13	24.88	308	0.03
28	14.08	33.39	6.15	302	20	13.87	33.31	6.14	24.93	304	0.06
41	13.28	33.35	6.30	289	30	14.04	33.39	6.17	24.96	300	0.09
51	12.75	33.51	6.43	267	50	12.80	33.51	6.42	25.30	268	0.15
60	11.84	33.32	6.03	265	75	11.18	33.41	5.40	25.53	247	0.21
68	11.51	33.37	5.81	255	100	10.58	33.56	5.26	25.75	225	0.27
77	11.12	33.42	5.29	245	150	8.87	33.84	3.05	26.26	177	0.37
90	11.25	33.57	5.62	236	200	7.70	33.96	2.90	26.52	152	0.46
98	10.69	33.56	5.32	227	250	7.24	33.98	2.48	26.61	144	0.53
117	9.60	33.62	3.72	205	300	6.89	34.04	1.83	26.70	135	0.60
140	9.12	33.80	3.10	184	400	6.15	34.15	0.94	26.88	118	0.74
183	8.06	33.94	3.00	158	500	5.54	34.18	0.57	26.99	108	0.85
236	7.38	33.97a)	2.63	146	600	5.25	34.27	0.25	27.09	98	0.96
329	6.62	34.11	1.34	126	700	5.16	34.42	0.22	27.22	86	1.06
442	5.94	34.17	0.80	113	800	4.38	34.44	0.33	27.32	76	1.15
566	5.35	34.23	0.43	102	1000	3.70	34.53	0.64	27.47	62	1.30
					1200	3.29	34.57	0.84	27.54	56	
424b)	6.00	34.16	0.67	115	1500	2.77	34.60	1.13	27.61	49	
473	5.68	34.17	0.68	111	2000	2.06	34.63	1.82	27.69	41	
522	5.43	34.27	0.47	-							
584	5.26	34.27	0.33	98							
649	5.23	34.38	0.22	90							
722	5.00	34.44	0.25	83							
801	4.38	34.44	0.36	76							
887	3.98	34.48	0.48	69							
988	3.76	34.52	0.61	64							
1102	3.49	34.56	0.72	58							
1227	3.22	34.53u	0.87	-							
1373	2.98	34.58	1.06	52							
1539	2.72	34.61	1.18	48							
1728	2.42	34.60u	1.45	-							
1939	2.16	34.63	0.96u	42							
2177	1.98	34.63	1.91	40							

a) Alternate value, 34.14‰, not used in interpolation.

b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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CREST; June 11, 1955; 0900 GCT; 33°50'N, 118°38'W; sounding, 400 fm; wind, 080°, force 3; weather, missing; sea, rough; wire angle, 00°.

87.35

0	16.56	33.58	5.70	339	0	16.56	33.58	5.70	24.55	339	0.00
10	16.40	33.55	5.70	339	10	16.40	33.55	5.70	24.56	339	0.03
30	11.42	33.48	4.42	246	20	13.50	33.49	5.02	25.15	283	0.06
40	10.46	33.54	3.58	225	30	11.42	33.48	4.42	25.54	246	0.09
50	10.08	33.59	3.18	215	50	10.08	33.59	3.18	25.86	215	0.14
60	9.74	33.69	3.11a)	202	75	9.34	33.82	2.70	26.16	186	0.19
71	9.42	33.77	2.82	191	100	9.16	33.90	2.40	26.26	177	0.23
81	9.24	33.87	2.57	181	150	8.92	34.08	2.14	26.44	160	0.32
91	9.18	33.89	2.42	178	200	8.86	34.24	1.33	26.57	148	0.40
101	9.16	33.90	2.40	177	250	8.55	34.25	1.13	26.62	143	0.47
119	9.02	34.01	2.32	167	300	8.27	34.25	1.04	26.67	138	0.54
144	8.92	34.04	2.29	163	400	7.64	34.28	0.68	26.79	127	0.68
163	8.96	34.22	1.69	150	500	6.56	34.33	0.41	26.97	110	0.80
203	8.84	34.25	1.27	147							
281	8.40	34.25	1.10	140							
384	7.79	34.28	0.74	129							
502	6.55	34.33	0.40	109							

CREST; June 11, 1955; 1415 GCT; 33°40'N, 118°58.5'W; sounding, 480 fm; wind, 180°, force 1; weather, partly cloudy; sea, rough; wire angle, 05°.

87.40

0	16.42	33.60	4.67r	335	0	16.42	33.60	(6.31)	24.59	335	0.00
10	15.41	33.58	6.31	315	10	15.41	33.58	6.31	24.81	315	0.03
26	10.87	33.60	3.92	227	20	11.80	33.59	4.42	25.55	245	0.06
50	9.67	33.75	2.67	196	30	10.51	33.62	3.64	25.81	220	0.08
75	9.32	33.92	2.24	178	50	9.67	33.75	2.67	26.05	196	0.12
99	9.20	33.98	2.24	172	75	9.32	33.92	2.24	26.24	178	0.17
153	8.86	34.16	1.74	154	100	9.20	33.98	2.24	26.31	172	0.22
201	8.63	34.27b)	1.10	143	150	8.89	34.14	1.75	26.49	156	0.30
300	7.92	34.29	0.80	130	200	8.67	34.27	1.12	26.62	143	0.38
404	6.90	34.31	0.52	115	250	8.23	34.29	0.90	26.70	135	0.45
503	6.18	34.35b)	0.42	103	300	7.92	34.29	0.80	26.75	130	0.51
609	5.62	34.42	0.12	91	400	6.94	34.31	0.53	26.90	116	0.64
					500	6.19	34.34	0.44	27.03	104	0.75
					600	5.70	34.41	0.18	27.15	93	0.86

CREST; June 11, 1955; 2050 GCT; 33°20'N, 119°40'W; sounding, 40 fm; wind, 280°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

87.50

0	13.96	33.74	5.88	273	0	13.96	33.74	5.88	25.24	273	0.00
10	13.74	33.73	5.82	269	10	13.74	33.73	5.82	25.28	269	0.03
15	13.62	33.73	5.66	267	20	13.52	33.74	5.74	25.34	265	0.05
20	13.52	33.74	5.74	265	30	11.80	33.78	4.52	25.70	230	0.08
25	12.72	33.75	4.76	249	50	9.54	33.92	2.67	26.21	182	0.12
30	11.80	33.78	4.52	230							
35	11.49	33.80	4.28	223							
40	10.97	33.83	3.80	211							
50	9.54	33.92	2.67	182							

a) Mean value of 3.07 and 3.15 ml/L.

b) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

87.60

CREST; June 12, 1955; 0244 GCT; 33°00'N, 120°22'W; sounding, 420 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 07°.

0	13.74	33.57	6.68	282	0	13.74	33.57	6.68	25.16	282	0.00
10	13.43	33.65u	8.75r	-	10	13.43	(33.57)	(6.44)	(25.22)	(276)	(0.03)
31	13.30	33.57	6.33	273	20	13.35	(33.57)	(6.38)	(25.24)	(274)	(0.06)
41	12.01	33.44	6.04	259	30	13.32	(33.57)	(6.36)	(25.25)	(273)	(0.08)
51	11.44	33.39	6.33	253	50	11.45	33.39	6.32	25.46	253	0.14
61	10.80	33.38	5.07	242	75	10.20	33.58	4.40	25.83	218	0.19
70	10.28	33.58	4.47	219	100	8.85	33.71	3.42	26.15	187	0.25
80	10.12	33.58	4.34	216	150	8.26	33.96	2.68	26.44	160	0.33
89	9.54	33.64	4.02	202	200	7.80	34.10	1.86	26.62	142	0.41
99	8.89	33.71	3.46	187	250	7.51	34.21	1.35	26.74	131	0.48
124	8.46	33.88	2.83	169	300	7.30	34.24	1.06	26.80	125	0.54
154	8.21	33.96	2.63	159	400	6.62	34.30	0.42	26.94	112	0.67
204	7.79	34.11	1.79	142	500	6.15	34.35	0.35	27.04	103	0.78
260	7.48	34.22	1.29	129	600	5.59	34.38	0.33	27.14	94	0.88
364	6.86	34.28	0.53	117							
481	6.22	34.34	0.36	104							
604	5.58	34.38	0.32	93							

87.70

CREST; June 13, 1955; 2116 GCT; 32°39'N, 121°02.5'W; sounding, 2100 fm; wind, 290°, force 2; weather, cloudy; sea, moderate; wire angle, 08°.

0	14.40	33.46	6.47	303	0	14.40	33.46	6.47	24.93	303	0.00
10	13.89	33.41	6.45	296	10	13.89	33.41	6.45	25.00	296	0.03
30	12.05	33.40	6.34	262	20	13.00	33.40	6.42	25.18	280	0.06
40	11.54	33.48	6.16	247	30	12.05	33.40	6.34	25.36	262	0.09
49	11.39	33.48	5.91	245	50	11.33	33.48	5.88	25.55	244	0.14
60	11.16	33.58	5.82	234	75	10.87	33.62	5.32	25.75	225	0.20
69	11.06	33.60	5.47	231	100	9.58	33.60	4.40	25.95	207	0.25
79	10.61	33.62	5.22	221	150	8.47	33.84	2.61	26.31	172	0.34
89	9.76	33.53	4.62	214	200	7.62	33.96	2.21	26.54	150	0.43
98	9.62	33.58	4.48	209	250	6.83	34.03	2.20	26.70	135	0.50
122	8.80	33.72	3.54	185	300	6.45	34.11	2.04	26.82	124	0.56
151	8.46	33.84	2.58	172	400	6.14	34.23	0.60	26.95	111	0.69
197	7.68	33.96	2.21	152	500	5.44	34.30	0.50	27.09	98	0.80
255	6.78	34.04	2.20	133	600	(5.04)	(34.31)	(0.54)	(27.15)	(93)	(0.90)
357	6.31	34.18	0.78	117							
473	5.62	34.29	0.50	101							
596	5.04	34.31	0.53	93							

87.80

CREST; June 14, 1955; 0415 GCT; 32°20'N, 121°43.5'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 25°.

0	15.42	33.39	5.93	329	0	15.42	33.39	5.93	24.66	329	0.00
9	15.41	33.40	5.91	328	10	15.41	33.40	5.92	24.67	328	0.03
26	15.00	33.40	5.97	320	20	15.18	33.40	5.93	24.73	323	0.06
36	14.76	33.40	6.02	314	30	14.88	33.40	5.98	24.79	317	0.10
45	14.68	33.40	6.10	313	50	14.30	33.41	6.25	24.92	304	0.16
54	13.54	33.46	6.38	286	75	12.20	33.27	5.78	25.23	275	0.23
62	12.65	33.28	6.46	282	100	10.63	33.35	5.23	25.58	242	0.30
71	12.31	33.26	6.06	277	150	8.58	33.81	3.36	26.27	176	0.40
80	12.04	33.28	5.62	271	200	7.81	34.01	2.85	26.54	150	0.48
88	11.64	33.30	5.90	263	250	7.29	34.04	2.41	26.65	140	0.56
108	9.94	33.41	4.64	226	300	6.70	34.10	1.81	26.77	128	0.63
134	8.91	33.69	3.59	189	400	5.91	34.18	0.86	26.94	113	0.75
175	8.14	33.98	3.06	157	500	5.62	34.24	0.50	27.03	104	0.86
226	7.56	34.02	2.62	145							
315	6.58	34.11	1.70	126							
423	5.81	34.18	0.74	111							
544	5.44	34.30	0.39	98							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

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CREST; June 14, 1955; 1121, 1310 GCT; 31°59'N, 122°22.5'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 02°, 08°.

87.90

0	15.58	33.39	5.89	332	0	15.58	33.39	5.89	24.63	332	0.00
10	15.56	33.40	5.93	330	10	15.56	33.40	5.93	24.65	330	0.03
30	15.36	33.39	6.00	327	20	15.49	33.40	5.98	24.66	329	0.07
45	14.46	33.30	6.03	316	30	15.36	33.39	6.00	24.68	327	0.10
55	13.68	33.27	6.31	303	50	14.09	33.28	6.17	24.87	309	0.16
65	13.16	33.29	6.33	290	75	12.80	33.29	6.20	25.14	284	0.24
76	12.74	33.29	6.17	283	100	11.88	33.28	5.88	25.30	268	0.31
85	12.48	33.30	6.10	278	150	9.23	33.57	4.23	25.98	203	0.43
100	11.88	33.28	5.88	268	200	8.35	33.64	3.43	26.18	185	0.53
110	11.41	33.21	5.73	265	250	7.66	33.76	2.88	26.38	166	0.62
134	9.76	33.40	5.02	223	300	7.11	34.04	2.14	26.67	138	0.70
163	8.98	33.64	3.88	194	400	6.23	34.14	0.92	26.86	120	0.83
218	8.06	33.64	3.28	181	500	5.35	34.18	0.63	27.01	106	0.95
281	7.28	34.01	2.37	142	600	4.90	34.31	0.28	27.16	92	1.05
394	6.30	34.14	0.94	120	700	4.80	34.38	0.26	27.23	85	1.15
522	5.18	34.19	0.51	103	800	4.50	34.40	0.26	27.28	80	1.24
656	4.90	34.38	0.27	86	1000	4.00	34.45	0.40	27.37	72	1.40
					1200	3.52	34.52	0.64	27.48	62	
802p	4.49	34.40	0.26	80	1500	2.89	34.56	1.03	27.57	53	
1122p	3.72	34.48	0.58	66	2000	2.15	34.60	1.76	27.66	44	
1377p	3.18	34.56	0.86	55							
1623p	2.66	34.56	1.18	51							
1948p	2.20	34.60	1.59	44							
2171p	2.01	34.60	1.93	43							
2381p	1.90	34.61	2.06	41							
2583a)	1.82	34.62	2.25	40							
2784a)	1.74	34.65	2.45	37							
2995a)	1.66	34.65	2.51	36							

PAOLINA-T; June 17, 1955; 0405 GCT; 33°28.5'N, 117°45.5'W; sounding, 28 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

90.28

0	17.53	33.56	5.22	363	0	17.53	33.56	5.22	24.31	363	0.00
5	17.36	33.55	4.96	360	10	14.02	33.57	5.76	25.10	288	0.03
10	14.02	33.57	5.76	288	20	12.06	33.55	5.11	25.47	252	0.06
15	12.68	33.55	3.88r	263	30	11.16	33.51	5.04	25.61	239	0.08
20	12.06	33.55	5.11	252							
25	11.68	33.57	4.99	244							
30	11.16	33.51	5.04	239							
40	10.32	33.56	3.88	221							

a) Pretrip; depth too uncertain for interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta T_{3,5}$	Z	T	S	O ₂	σ_t	$\delta T_{3,5}$	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn, m

90.30

PAOLINA-T; June 17, 1955; 0709 GCT; 33°24.5'N, 117°55'W; sounding, 340 fm; wind, 280°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	17.96	33.60	6.01	370	0	17.96	33.60	6.01	24.23	370	0.00
10	17.68	33.63	6.34	361	10	17.68	33.63	6.34	24.32	361	0.04
30	12.23	33.47	5.73	261	20	15.10	33.54	6.27	24.87	309	0.07
40	11.41	33.55	4.80	240	30	12.23	33.47	5.73	25.38	261	0.10
50	10.56	33.55	4.25	225	50	10.56	33.55	4.25	25.76	225	0.15
60	10.08	33.65	3.72	210	75	9.63	33.73	3.51	26.04	198	0.20
70	9.78	33.71	3.48	201	100	9.34	33.87	2.96	26.20	182	0.25
80	9.53	33.74	3.52	195	150	8.99	34.07	2.48	26.42	162	0.33
90	9.48	33.84	3.44	187	200	8.68	34.17	1.97	26.54	150	0.41
100	9.34	33.87	2.96	182	250	8.57	34.22	1.78	26.58	146	0.49
120	9.15	33.98	2.55	172	300	7.98	(34.23)	1.17	(26.70)	(135)	(0.56)
143	9.02	34.07	2.50	163	400	7.09	(34.32)	0.77	(26.90)	(116)	(0.70)
164	8.84	34.07	2.22	160	500	6.59	(34.42)	0.72	(27.05)	(102)	(0.80)
202	8.68	34.18	1.93	149							
281	8.02	34.23	1.20	137							
385	7.21	34.30a)	0.80	120							
505	6.49	34.42a)	0.71	102							

90.37

PAOLINA-T; June 17, 1955; 1225 GCT; 33°10.5'N, 118°23.5'W; sounding, 650 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

0	16.50	33.60	6.05	337	0	16.50	33.60	6.05	24.58	337	0.00
10	16.46	33.58	6.17	338	10	16.46	33.58	6.17	24.57	338	0.03
32	11.40	33.55	5.05	240	20	16.30	33.56	6.14	24.60	335	0.07
42	10.91	33.57	4.50	230	30	11.58	33.55	5.14	25.56	244	0.10
53	10.31	33.58	3.90	219	50	10.42	33.58	4.00	25.79	221	0.14
64	9.36	33.71	3.40	195	75	9.17	33.77	3.22	26.15	187	0.19
74	9.17	33.77	3.25	187	100	9.15	33.86	3.20	26.23	180	0.24
84	9.17	33.78	3.13	186	150	9.03	34.16	1.90	26.48	156	0.32
94	9.16	33.80	3.23	185	200	8.81	34.25	1.32	26.58	146	0.40
104	8.97	33.87	3.56	177	250	8.47	34.31	1.05	26.68	137	0.47
129	9.03	34.09	2.08	161	300	8.00	34.31		26.75	130	0.54
159	9.01	34.18	1.70	155	400	6.73	34.30		26.93	114	0.67
207	8.78	34.27	1.24	146	500	6.34	34.35		27.02	105	0.78
266	8.37	34.31	0.94	135	600	5.66	34.37		27.12	96	0.89
371	6.97	34.28	-	118							
484	6.42	34.34	-	107							
614	5.58	34.37	-	94							

90.45

PAOLINA-T; June 17, 1955; 1808 GCT; 32°58.5'N, 118°54'W; sounding, 900 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.

0	15.00	33.75		294	0	15.00	33.75		25.03	294	0.00
10	14.79	33.75		290	10	14.79	33.75		25.07	290	0.03
24	11.21	33.72		224	20	14.51	33.75		25.14	284	0.06
53	9.28	33.92		178	30	10.67	33.76		25.89	212	0.08
63	9.04	33.92		174	50	9.38	33.91		26.22	180	0.12
73	8.90	33.94		170	75	8.88	33.96		26.34	169	0.17
88	8.84	34.02		164	100	8.78	34.04		26.43	161	0.21
106	8.71	34.07		160	150	8.40	34.14		26.56	148	0.29
131	8.41	34.11		151	200	8.10	34.23		26.67	138	0.36
161	8.40	34.16		147	250	7.74	34.25		26.74	131	0.43
210	8.06	34.23		137	300	7.40	34.27		26.81	125	0.49
282	7.55	34.26		127	400	6.60	34.32		26.96	111	0.61
382	6.74	34.32		112	500	5.99	34.32		27.05	102	0.72
512	5.88	34.32		100	600	5.68	34.33		27.09	98	0.83
694	5.26	34.38		90	700	5.25	34.38		27.18	89	0.93
921	4.42	34.43		77	800	4.83	34.41		27.25	83	1.02
1224	3.86	34.52		65	1000	4.23	34.46		27.35	73	1.19

a) Salinity samples at 385 and 505 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m	

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PAOLINA-T; June 18, 1955; 0300 GCT; 32°34.5'N, 119°37'W; sounding, 600 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 22°.

90.55

0	14.43	33.61		293	0	14.43	33.61		25.04	293	0.00
9	14.36	33.64		289	10	14.35	33.64		25.08	289	0.03
28	14.22	33.62		287	20	14.28	33.63		25.09	288	0.06
42	13.34	33.55		276	30	14.21	33.61		25.10	287	0.09
51	12.02	33.52		254	50	12.03	33.52		25.46	254	0.14
60	11.77	33.58		244	75	9.94	33.53		25.83	218	0.20
71	10.20	33.50		223	100	9.28	33.75		26.12	190	0.25
78	9.75	33.56		212	150	8.57	34.09		26.50	154	0.34
93	9.42	33.69		197	200	7.80	34.10		26.62	143	0.42
102	9.24	33.78		188	250	7.36	34.11		26.69	136	0.48
126	8.90	33.86		176	300	6.99	34.19		26.81	125	0.55
153	8.50	34.11		152	400	6.33	34.26		26.95	111	0.67
204	7.75	34.10		142	500	5.82	34.31		27.05	102	0.78
262	7.22	34.14		132	600	5.38	34.39		27.17	90	0.89
371	6.49	34.24		115							
493	5.88	34.31		103							
624	5.26	34.41		88							

PAOLINA-T; June 18, 1955; 0721 GCT; 32°24'N, 119°51'W; sounding, 450 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 12°.

90.60

0	14.09	33.53		292	0	14.09	33.53		25.05	292	0.00
10	14.08	33.57		288	10	14.08	33.57		25.09	288	0.03
30	14.08	33.55		290	20	14.07	33.56		25.08	289	0.06
43	12.50	33.42		269	30	14.07	33.55		25.07	290	0.09
53	11.49	33.35		256	50	11.72	33.36		25.39	260	0.14
64	11.26	33.44		246	75	10.32	33.50		25.75	226	0.20
74	10.35	33.50		226	100	9.41	33.67		26.03	199	0.26
84	9.88	33.56		214	150	8.60	33.94		26.38	166	0.35
98	9.42	33.66		200	200	8.06	34.04		26.54	150	0.43
108	9.18	33.70		192	250	7.78	34.14		26.69	136	0.50
132	8.82	33.86		176	300	7.12	34.18		26.78	127	0.57
161	8.44	33.96		163	400	6.13	34.23		26.96	111	0.69
213	7.92	34.06		150	500	5.61	34.32		27.09	98	0.80
274	7.38	34.16		132	600	5.33	34.39		27.17	90	0.90
384	6.25	34.21		115							
510	5.59	34.33		97							
643	5.22	34.42		87							

PAOLINA-T; June 18, 1955; 1455 GCT; 32°02'N, 120°36'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 27°.

90.70

0	14.89	33.40		317	0	14.89	33.40		24.78	317	0.00
9	14.89	33.40		317	10	14.88	33.40		24.78	317	0.03
27	14.86	33.40		317	20	14.86	33.40		24.79	317	0.06
51	14.22	33.38		305	30	14.82	33.40		24.80	316	0.10
63	13.22	33.29		292	50	14.30	33.38		24.91	305	0.16
71	12.26	33.29		275	75	12.04	33.30		25.29	269	0.23
84	11.54	33.34		258	100	10.83	33.39		25.58	241	0.29
104	10.25	33.44		229	150	8.66	33.80		26.25	178	0.40
131	9.10	33.66		194	200	8.34	34.09		26.53	151	0.48
149	8.68	33.80		178	250	8.04	34.16		26.63	142	0.56
196	8.34	34.08		152	300	7.33	34.19		26.76	129	0.63
260	7.92	34.17		140	400	6.23	34.27		26.97	110	0.75
351	6.62	34.20		120	500	6.01	34.33		27.04	103	0.86
471	6.08	34.31		105	600	5.55	34.39		27.15	92	0.96
641	5.22	34.42		86	700	4.92	34.45		27.27	81	1.06
855	4.33	34.51		70	800	4.48	34.49		27.35	74	1.14
1163	3.55	34.54		60	1000	3.86	34.53		27.45	64	1.29

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

93.27

PAOLINA-T; June 20, 1955; 1821 GCT; 32°56'N, 117°18'W; sounding, 50 fm; wind, 280°, force 1; weather, overcast; sea, slight; wire angle, 00°.

0	20.48r	33.62	-	0	18.2	33.62	24.19	374	0.00
10	13.90	33.53	288	10	13.90	33.53	25.10	288	0.03
15	12.58	33.63	255	20	11.62	33.52	25.53	246	0.06
20	11.62	33.52	246	30	10.56	33.50	25.71	229	0.08
25	11.14	33.48	241	50	9.68	33.62	25.94	207	0.13
30	10.56	33.50	229	75	9.18	33.78	26.16	187	0.18
35	10.26	33.52	223						
45	9.88	33.61	210						
55	9.48	33.63	203						
65	9.32	33.71	194						
80	9.13	33.81	184						

93.30

PAOLINA-T; June 20, 1955; 1533 GCT; 32°49.5'N, 117°31.5'W; sounding, 470 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 06°.

0	18.72r	33.68	-	0	17.6	33.68	24.38	356	0.00
10	16.40	33.58	337	10	16.40	33.58	24.58	337	0.03
30	12.92	33.51	270	20	14.40	33.54	25.00	297	0.07
40	11.74	33.50	250	30	12.92	33.51	25.28	270	0.09
50	11.06	33.54	235	50	11.06	33.54	25.65	235	0.14
60	10.48	33.56	224	75	9.56	33.61	25.97	205	0.20
69	9.72	33.58	210	100	9.29	33.71	26.09	193	0.25
79	9.48	33.64	202	150	8.50	33.93	26.38	166	0.34
88	9.38	33.69	196	200	8.10	34.05	26.53	151	0.42
98	9.32	33.71	194	250	8.11	34.15	26.61	144	0.50
123	8.99	33.86	178	300	8.10	34.24	26.69	136	0.57
151	8.49	33.93	166	400	7.61	34.31	26.81	124	0.70
199	8.10	34.05	151	500	6.46	34.31	26.97	109	0.82
259	8.11	34.16	142	600	5.75	34.35	27.10	97	0.93
360	7.96	34.31	129						
476	6.74	34.31	113						
604	5.72	34.36	96						

93.40

PAOLINA-T; June 20, 1955; 0745 GCT; 32°24'N, 118°17'W; sounding, 400 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 03°.

0	18.98r	33.64	-	0	16.9	33.64	24.52	343	0.00
10	16.88	33.65	342	10	16.88	33.65	24.53	342	0.03
30	11.44	33.58	239	20	13.20	33.61	25.30	268	0.06
45	10.57	33.64	219	30	11.44	33.58	25.61	239	0.09
60	9.68	33.68	202	50	10.16	33.67	25.90	211	0.14
70	9.46	33.68	198	75	9.33	33.71	26.08	194	0.18
80	9.20	33.75	189	100	8.87	33.85	26.26	177	0.23
95	8.88	33.82	179	150	8.33	34.06	26.50	154	0.32
105	8.83	33.87	175	200	7.82	34.14	26.65	140	0.39
120	8.60	33.94	166	250	7.43	34.17	26.73	133	0.46
148	8.34	34.05	154	300	7.11	34.21	26.81	125	0.52
178	8.02	34.12	144	400	6.72	34.32	26.95	112	0.65
236	7.56	34.16	135	500	6.13	34.33	27.03	104	0.76
305	7.08	34.22	124	600	5.44	34.36	27.14	94	0.86
422	6.60	34.33	110	700	(4.92)	(34.43)	(27.25)	(83)	(0.96)
558	5.71	34.34	98						
697	4.96	34.42	83						

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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PAOLINA-T; June 20, 1955; 0110 GCT; 32°10'N, 118°53'W; sounding, 740 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 22°.

93.50

0	15.78	33.64		318	0	15.78	33.64		24.77	318	0.00
9	15.75	33.66		316	10	15.75	33.66		24.80	316	0.03
28	12.24	33.60		252	20	13.98	33.65		25.20	278	0.06
42	10.94	33.57		230	30	11.96	33.59		25.52	248	0.09
56	9.86	33.62		209	50	10.10	33.61		25.87	214	0.13
65	9.48	33.71		197	75	9.26	33.77		26.14	188	0.18
73	9.30	33.76		190	100	8.83	33.88		26.29	174	0.23
88	9.08	33.86		180	150	8.57	34.02		26.44	160	0.32
96	8.90	33.87		176	200	8.21	34.12		26.57	148	0.39
111	8.68	33.90		170	250	7.74	34.17		26.69	136	0.46
133p	8.59	33.95		165	300	7.44	34.22		26.76	129	0.53
138	8.57	33.96		164	400	7.12	34.36		26.92	114	0.66
165	8.60	34.08		156	500	6.18	34.33		27.03	104	0.77
242p	7.80	34.16		138							
372p	7.22	34.36		116							
506p	6.08	34.33		103							

PAOLINA-T; June 19, 1955; 1908 GCT; 31°51'N, 119°30'W; sounding, 900 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 18°.

93.60

0	15.68	33.49		328	0	15.68	33.49		24.67	328	0.00
10	15.64	33.47		328	10	15.64	33.47		24.67	328	0.03
29	15.58	33.49		325	20	15.56	33.48		24.68	327	0.07
43	13.76	33.42		293	30	15.56	33.49		24.70	325	0.10
58	13.11	33.44		279	50	13.44	33.42		25.11	286	0.16
67	12.73	33.45		272	75	12.42	33.43		25.31	267	0.23
76	12.40	33.43		267	100	11.42	33.50		25.55	244	0.29
91	11.92	33.46		256	150	9.37	33.78		26.13	189	0.40
100	11.42	33.50		244	200	8.61	34.06		26.46	158	0.49
114	10.82	33.48		235	250	8.32	34.18		26.61	144	0.57
141	9.64	33.72		198	300	7.74	34.23		26.73	132	0.64
169	8.88	33.93		171	400	6.62	34.26		26.91	115	0.77
219	8.53	34.12		152	500	6.01	34.33		27.05	102	0.88
285	7.92	34.23		135	600	5.49	34.38		27.15	92	0.98
392	6.69	34.26		116							
519	5.88	34.34		100							
654	5.28	34.39		89							

PAOLINA-T; June 22, 1955; 0125 GCT; 32°15.5'N, 117°09'W; sounding, 32 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

97.30

0	16.76	33.58		343	0	16.76	33.58		24.52	343	0.00
5	16.59	33.59		339	10	15.16	33.50		24.81	315	0.03
10	15.16	33.50		315	20	12.96	33.53		25.29	269	0.06
15	13.42	33.50		281	30	9.72	33.64		25.96	206	0.09
20	12.96	33.53		269							
25	11.32	33.57		237							
30	9.72	33.64		206							
40	9.53	33.72		196							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

97.32

PAOLINA-T; June 22, 1955; 0353 GCT; 32°11'N, 117°17'W; sounding, 780 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 25°.

0	18.0	33.64	368	0	18.0	33.64	24.25	368	0.00
9	17.90	33.60	369	10	17.89	33.59	24.24	369	0.04
27	14.42	33.45	304	20	16.20	33.51	24.58	337	0.07
39	12.28	33.40	267	30	13.80	33.43	25.04	293	0.10
48	11.06	33.37	247	50	10.93	33.38	25.55	244	0.16
57	10.26	33.50	224	75	9.53	33.70	26.04	198	0.21
64	9.86	33.58	212	100	9.40	33.78	26.12	190	0.26
71	9.52	33.68	200	150	9.02	34.13	26.46	158	0.35
83	9.58	33.78	193	200	8.85	34.23	26.56	148	0.43
90	9.50	33.77	192	250	8.64	34.26	26.62	143	0.50
106	9.34	33.81	187	300	8.43	34.29	26.67	138	0.58
127	9.19	33.95	174	400	6.70	34.18	26.84	122	0.71
164	8.93	34.16	154	500	6.30	34.30	26.99	108	0.83
211	8.77	34.24	146						
295	8.46	34.29	138						
398	6.75	34.18	123						
520	6.29	34.34	105						

97.40

PAOLINA-T; June 22, 1955; 1025 GCT; 31°58'N, 117°45'W; sounding, 930 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 00°.

0	17.84r	33.57	-	0	16.8	33.57	24.48	346	0.00
10	16.74	33.55	346	10	16.74	33.55	24.48	346	0.03
30	12.80	33.60	262	20	16.71	33.55	24.49	346	0.07
45	10.82	33.58	228	30	12.80	33.60	25.37	262	0.10
56	10.12	33.65	211	50	10.44	33.60	25.81	220	0.15
65	9.90	33.69	204	75	9.64	33.78	26.08	194	0.20
75	9.64	33.78	194	100	9.18	33.91	26.25	178	0.25
85	9.48	33.83	188	150	8.80	34.06	26.44	160	0.33
99	9.20	33.91	178	200	7.94	34.11	26.61	144	0.41
109	9.11	33.91	176	250	7.81	34.26	26.74	131	0.48
134	8.88	34.04	163	300	7.40	34.33	26.86	120	0.54
164	8.72	34.07	158	400	6.67	34.31	26.95	112	0.66
217	8.03	34.17	141	500	6.04	34.35	27.05	102	0.77
282	7.56	34.33	123	600	5.48	34.40	27.16	91	0.88
394	6.70	34.31	112						
523	5.91	34.36	99						
657	5.24	34.42	86						

97.50

PAOLINA-T; June 22, 1955; 1849 GCT; 31°37'N, 118°29'W; sounding, 1070 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 32°.

0	16.5	33.64	334	0	16.5	33.64	24.61	334	0.00
18	16.13	33.65	325	10	16.29	33.64	24.66	330	0.03
31	14.02	33.68	280	20	15.42	33.66	24.87	309	0.06
43	12.17	33.69	243	30	14.19	33.68	25.15	283	0.10
51	11.30	33.65	231	50	11.42	33.66	25.68	232	0.15
58	10.28	33.61	217	75	9.66	33.72	26.04	198	0.20
70	9.84	33.68	204	100	8.97	33.88	26.27	176	0.25
78	9.54	33.75	194	150	8.57	34.14	26.53	151	0.33
89	9.18	33.78	186	200	8.22	34.19	26.62	143	0.40
111	8.81	33.96	168	250	7.69	34.22	26.73	132	0.47
132	8.76	34.07	159	300	7.12	34.21	26.80	126	0.54
177	8.42	34.16	148	400	6.42	34.29	26.96	110	0.66
234	7.88	34.22	135	500	6.07	34.34	27.05	102	0.77
322	6.90	34.20	123						
437	6.36	34.32	107						
561	5.78	34.36	97						

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m	

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PAOLINA-T; June 23, 1955; 2251 GCT; 31°42.5'N, 116°43.5'W; sounding, 83 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 17°.

100.29

0	15.24	33.56		313	0	15.24	33.56		24.83	313	0.00
10	11.82	33.50		251	10	11.82	33.50		25.48	251	0.03
14	11.37	33.53		241	20	11.02	33.49		25.62	237	0.05
19	11.04	33.49		238	30	10.25	33.57		25.82	219	0.08
24	10.66	33.55		227	50	9.61	33.67		26.00	202	0.12
29	10.25	33.57		219	75	9.35	33.74		26.10	192	0.17
34	10.24	33.57		219	100	9.19	33.96		26.29	174	0.21
43	9.84	33.61		210							
53	9.55	33.68		200							
63	9.46	33.68		198							
78	9.32	33.75		191							
97	9.21	33.93		176							
116	9.14	34.01		169							

PAOLINA-T; June 23, 1955; 2130 GCT; 31°40.5'N, 116°46.5'W; sounding, 227 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 17°.

100.30

0	16.75	33.57		345	0	16.75	33.57		24.49	345	0.00
10	14.40	33.53		298	10	14.40	33.53		24.99	298	0.03
14	13.18	33.47		278	20	12.72	33.48		25.29	269	0.06
19	12.72	33.48		269	30	10.92	33.45		25.61	239	0.09
24	11.52	33.43		251	50	9.76	33.59		25.91	210	0.13
29	10.97	33.45		239	75	9.18	33.89		26.24	179	0.18
33	10.68	33.46		236	100	9.09	33.94		26.30	173	0.22
43	10.08	33.55		218	150	9.05	34.09		26.42	162	0.31
52	9.68	33.60		208	200	9.00	34.22		26.52	152	0.39
62	9.41	33.69		197	250	8.77	34.31		26.64	141	0.46
67	9.26	33.80		187	300	(8.23)	(34.32)		(26.73)	(132)	(0.53)
96	9.08	33.93		174							
110	9.11	33.98		171							
157	9.05	34.11		160							
195	9.01	34.21		153							
235	8.83	34.31		142							
290	8.35	34.32		134							

HORIZON; June 28, 1955; 2212 GCT; 31°05'N, 116°25'W; sounding, 35 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 12°.

103.30

0	14.84		6.07	0	14.84		6.07
10	14.36		5.98	10	14.36		5.98
15	13.68		5.96	20	12.12		5.41
20	12.12		5.41	30	10.86		4.66
25	11.26		4.77				
29	10.90		4.64				
34	10.67		4.68				
39	10.30		4.43				
49	9.88		4.04				

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

103.40

HORIZON; June 28, 1955; 1729 GCT; 30°48'N, 116°57'W; sounding, 1300 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 30°.

0	16.67		5.89		0	16.67		5.89			
9	16.66		5.90		10	16.66		5.90			
26	14.37		6.11		20	16.55		5.91			
39	13.17		5.97		30	13.84		6.08			
48	12.42		5.68		50	12.26		5.54			
56	11.18		4.72		75	10.10		3.70			
64	10.76		4.30		100	9.49		2.97			
73	10.17		3.77		150	8.42		2.43			
86	9.78		3.36		200	7.75		1.96			
93	9.68		3.01		250	7.45		1.76			
112	8.98		2.97		300	7.30		1.20			
132	8.70		2.68		400	6.68		0.47			
175	8.05		2.11		500	6.03		0.34			
224	7.54		1.86								
317	7.26		0.85								
426	6.50		0.44								
550	5.64		0.31								

103.50

HORIZON; June 28, 1955; 1150 GCT; 30°27'N, 117°43.5'W; sounding, 1550 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 23°.

0	16.27	33.49	5.81	340	0	16.27	33.49	5.81	24.54	340	0.00
9	16.25	33.49	5.75	340	10	16.25	33.49	5.75	24.54	340	0.03
28	16.26	33.47	5.74	341	20	16.26	33.48	5.75	24.53	341	0.07
42	15.40	33.45	5.90	324	30	16.24	33.46	5.75	24.53	341	0.10
51	14.34	33.44	6.00	303	50	14.54	33.44	5.98	24.90	306	0.17
60	13.66	33.40	6.04	292	75	13.10	33.38	5.84	25.14	283	0.24
69	13.36	33.40	5.84	286	100	11.21	33.40	4.94	25.51	248	0.31
79	12.88	33.37	5.83	280	150	9.12	33.84	3.00	26.21	182	0.41
92	11.81	33.40	5.27	258	200	9.05	34.13	2.00	26.46	158	0.50
101	11.13	33.40	4.90	246	250	8.25	34.16	1.74	26.60	145	0.58
123	9.56	33.59	3.76	207	300	8.07	34.22	1.59	26.67	138	0.65
149	9.12	33.83	3.01	182	400	7.40	34.28	0.63	26.82	124	0.79
195	9.08	34.13	2.04	160	500	6.39	34.32	0.49	26.99	108	0.91
251	8.22	34.16	1.72	145	600	5.90	34.39	0.35	27.10	97	1.02
353	7.88	34.27	0.84	131							
474	6.58	34.30	0.52	112							
603	5.88	34.39	0.33	96							

103.60

HORIZON; June 28, 1955; 0603 GCT; 30°05.5'N, 118°22.5'W; sounding, 1900 fm; wind, 330°, force 4; weather, overcast; sea, rough; wire angle, 18°.

0	16.37	33.49		342	0	16.37	33.49		24.52	342	0.00
10	16.37	33.52		339	10	16.37	33.52		24.56	339	0.03
28	16.30	33.63		330	20	16.35	33.59		24.60	335	0.07
43	13.91	33.43		315	30	16.28	33.63		24.65	330	0.10
52	13.28	33.42		284	50	13.40	33.42		25.11	286	0.16
61	12.61	33.48		267	75	12.00	33.42		25.38	260	0.23
70	12.14	33.42		263	100	10.78	33.46		25.64	236	0.29
79	11.82	33.42		257	150	8.88	33.74		26.18	185	0.40
92	11.26	33.43		246	200	8.06	33.97		26.48	156	0.49
100	10.78	33.46		236	250	7.42	34.19		26.74	131	0.56
123	9.52	33.53		210	300	6.89	34.17		26.80	126	0.63
148	8.92	33.73		186	400	6.30	34.21		26.91	115	0.75
198	8.08	33.96		157	500	6.15	34.35		27.05	102	0.86
257	7.36	34.20		129	600	5.50	34.41		27.18	90	0.97
363	6.38	34.14		121							
486	6.20	34.33		104							
621	5.36	34.42		88							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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HORIZON; June 28, 1955; 0005 GCT; 29°46.5'N, 119°06.5'W; sounding, 1750 fm; wind, 340°, force 4; weather, overcast; sea, very rough; wire angle, 07°.

103.70

0	16.31	33.42	5.63	346	0	16.31	33.42	5.63	24.48	346	0.00
11	16.30	33.44	5.58	344	10	16.30	33.44	5.59	24.50	344	0.03
30	16.26	33.45	5.42	342	20	16.27	33.45	5.50	24.51	343	0.07
45	15.22	33.37	5.91	326	30	16.26	33.45	5.42	24.52	342	0.10
55	14.59	33.36	6.04	314	50	14.77	33.36	6.04	24.79	317	0.17
65	14.43	33.35	5.85	312	75	14.14	33.34	5.88	24.90	306	0.25
75	14.14	33.34	5.88	306	100	12.41	33.31	5.50	25.22	276	0.32
84	13.51	33.31	5.81	295	150	9.43	33.59	4.28	25.96	205	0.44
98	12.51	33.30	5.52	278	200	8.52	33.87	3.50	26.33	170	0.54
108	11.99	33.37	5.43	264	250	7.67	33.99	2.85	26.55	149	0.62
132	10.26	33.46	4.75	227	300	7.24	34.09	2.55	26.69	136	0.69
161	9.14	33.65	4.03	196	400	6.81	34.30	0.67	26.92	114	0.82
214	8.30	33.92	3.31	164	500	6.02	34.36	0.39	27.07	100	0.94
277	7.34	34.05	2.66	140	600	5.40	34.38	0.34	27.16	92	1.04
388	6.90	34.29	0.71	116							
506	6.00	34.36	0.38	100							
649	5.04	34.38	0.34	88							

HORIZON; June 27, 1955; 1942 GCT; 29°33'N, 119°34'W; sounding, 2000 fm; wind, 340°, force 4; weather, overcast; sea, rough; wire angle, 08°.

103.80

0	16.64	33.58		342	0	16.64	33.58		24.52	342	0.00
10	16.63	33.57		342	10	16.63	33.57		24.52	342	0.03
31	16.55	33.54		342	20	16.63	33.56		24.52	342	0.07
46	15.60	33.52		323	30	16.60	33.54		24.52	342	0.10
55	15.52	33.57		318	50	15.55	33.55		24.76	320	0.17
66	14.88	33.46		313	75	14.31	33.41		24.92	304	0.25
76	14.30	33.41		304	100	13.20	33.39		25.13	284	0.32
86	14.16	33.48		296	150	10.38	33.48		25.72	228	0.45
100	13.20	33.39		284	200	8.78	33.81		26.25	178	0.55
110	12.80	33.42		274	250	7.70	33.98		26.54	150	0.64
134	11.12	33.43		244	300	7.15	34.05		26.67	138	0.71
163	9.91	33.55		215	400	6.42	34.14		26.84	122	0.85
214	8.40	33.88		168	500	5.75	34.22		26.99	108	0.97
277	7.37	34.02		142	600	5.22	34.29		27.11	96	1.08
387	6.50	34.13		123							
513	5.66	34.23		106							
647	5.00	34.34		90							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

103.90

HORIZON; June 27, 1955; 1145, 1317 GCT; 29°09'N, 120°19'W; sounding, 2100 fm; wind, 330°, force 5;
 weather, clear; sea, rough; wire angle, 08°, 23°.

0	16.31	33.42	5.72	345	0	16.31	33.42	5.72	24.49	345	0.00
10	16.30	33.46	5.78	342	10	16.30	33.46	5.78	24.52	342	0.03
30	16.05	33.49	5.74	334	20	16.24	33.48	5.78	24.56	339	0.07
45	15.08	33.44	6.00	318	30	16.05	33.49	5.74	24.61	334	0.10
54	14.54	33.38	6.00	312	50	14.80	33.41	6.00	24.81	315	0.17
64	14.00	33.33	6.18	304	75	13.58	33.29	6.19	24.98	299	0.24
73	13.72	33.30	6.18	301	100	12.42	33.26	5.90	25.18	280	0.32
83	13.07	33.26	6.22	291	150	10.00	33.45	4.66	25.76	224	0.45
99	12.42	33.26	5.90	280	200	8.79	33.78	3.88	26.22	181	0.55
107	12.32	33.27	5.89	277	250	7.90	33.99	3.15	26.52	152	0.64
131	11.58	33.43	5.48	252	300	7.24	34.06	2.50	26.67	138	0.71
159	9.56	33.46	4.47	216	400	6.42	34.13	1.15	26.83	123	0.85
211	8.60	33.85	3.74	172	500	5.70	34.23	0.56	27.01	106	0.97
272	7.54	34.03	2.91	144	600	5.15	34.28	0.44	27.11	96	1.07
383	6.52	34.12	1.21	124	700	4.80	34.38	0.48	27.23	85	1.17
511	5.66	34.22	0.60	-	800	4.56	34.42	0.55	27.29	79	1.26
646	5.01	34.28	0.38	-	1000	3.85	34.48	0.64	27.41	68	1.42
					1200	3.40	34.54	0.91	27.50	59	
0a)	16.28	33.40	5.71	-	1500	2.80	34.57	1.22	27.58	52	
444	6.09	34.14	1.03	118	2000	2.15	34.61	1.90	27.67	43	
493	5.71	34.23	0.56	-							
548	5.40	34.25	0.49	101							
612	5.12	34.31	0.41	-							
680	4.86	34.38	0.43	86							
759	4.65	34.38	0.56	83							
841	4.42	34.45	0.54	76							
933	4.12	34.45	0.60	75							
1039	3.77	34.50	0.69	66							
1158	3.51	34.54	0.88	60							
1289	3.20	34.53	1.01	58							
1440	2.90	34.58u	1.18	-							
1611	2.60	34.56u	1.35	-							
1804	2.30	34.60	1.65	45							
2021	2.08	34.61	1.95	43							
2263	1.91	34.67	2.13	36							

107.32

HORIZON; June 25, 1955; 1911 GCT; 30°26.5'N, 116°11.5'W; sounding, 160 fm; wind, 320°, force 1;
 weather, cloudy; sea, moderate; wire angle, 07°.

0	15.45	33.52	5.88	320	0	15.45	33.52	5.88	24.76	320	0.00
10	15.25	33.51	6.11	317	10	15.25	33.51	6.11	24.79	317	0.03
15	14.65	33.48	6.10	307	20	13.74	33.48	5.96	25.09	288	0.06
20	13.74	33.48	5.96	288	30	11.97	33.46	5.08	25.43	256	0.09
25	12.85	33.51	5.57	269	50	10.70	33.47	4.34	25.66	234	0.14
30	11.97	33.46	5.08	256	75	9.35	33.63	3.72	26.01	200	0.19
35	11.40	33.42	4.77	250	100	9.10	33.86	3.45	26.24	179	0.24
45	10.86	33.45	4.38	238	150	9.29	34.16	1.80	26.44	160	0.33
54	10.52	33.48	4.31	230	200	9.13	34.32	1.20	26.59	146	0.41
68	9.68	33.57	3.88	210	250	(8.92)	(34.34)	(1.01)	(26.64)	(141)	(0.48)
82	9.14	33.69	3.57	192							
102	9.08	33.88	3.03	178							
130	9.14	34.02	2.27	168							
163	9.40	34.26	1.45	154							
197	9.17	34.32	1.21	146							
236	9.03	34.34	1.02	143							
245	8.98	34.34	1.01	142							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

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HORIZON; June 25, 1955; 2131 GCT; 30°21'N, 116°21.5'W; sounding, 1050 fm; wind, 290°, force 3; weather, cloudy; sea, slight; wire angle, 10°.

107.35

0	16.69	33.55	5.79	345	0	16.69	33.55	5.79	24.49	345	0.00
10	16.40	33.57	5.82	337	10	16.40	33.57	5.82	24.58	337	0.03
31	13.05	33.48	5.56	277	20	15.37	33.56	5.80	24.80	316	0.07
40	11.16	33.44	4.34	244	30	13.20	33.49	5.59	25.21	277	0.10
49	10.62	33.55	3.99	227	50	10.58	33.56	3.96	25.75	225	0.15
60	9.82	33.59	3.65	211	75	9.27	33.67	3.55	26.06	196	0.20
70	9.50	33.62	3.58	204	100	8.68	33.90	3.15	26.33	170	0.25
79	9.18	33.71	3.52	191	150	8.22	34.05	2.16	26.51	153	0.33
81	9.12	33.76	3.35	187	200	9.00	34.41	0.80	26.73	132	0.40
92	8.80	33.82	3.23	172	250	8.26	34.40	0.64	26.79	127	0.47
116	8.60	33.93	2.90	167	300	7.70	34.36	0.54	26.84	122	0.53
144	8.18	34.00	2.59	156	400	7.04	34.35	0.40	26.92	114	0.65
192	9.05	34.39	0.88	140	500	6.55	34.37	0.32	27.01	106	0.77
249	8.28	34.40	0.64	127	600	(6.12)	(34.37)	(0.31)	(27.07)	(100)	(0.88)
353	7.28	34.34	0.46	118							
470	6.68	34.37	0.35	108							
594	6.16	34.37	0.31	101							

HORIZON; June 26, 1955; 0047 GCT; 30°09'N, 116°44.5'W; sounding, 1550 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 22°.

107.40

0	16.23	33.49		339	0	16.23	33.49		24.56	339	0.00
9	16.20	33.51		336	10	16.19	33.51		24.59	336	0.03
28	15.30	33.46		321	20	15.90	33.50		24.64	331	0.07
41	13.02	33.35		284	30	15.00	33.44		24.80	316	0.10
50	12.50	33.32		276	50	12.50	33.32		25.22	276	0.16
60	12.00	33.33		267	75	11.24	33.40		25.50	249	0.22
69	11.56	33.39		254	100	9.73	33.60		25.92	209	0.28
77	11.14	33.40		247	150	8.96	33.97		26.33	170	0.38
91	9.92	33.56		214	200	8.35	34.09		26.53	151	0.46
100	9.73	33.60		209	250	8.44	34.29		26.67	138	0.53
123	9.02	33.73		188	300	8.18	34.39		26.80	126	0.60
149	8.98	33.96		170	400	7.24	34.37		26.91	115	0.72
201	8.33	34.09		151	500	6.50	34.35		27.00	107	0.84
261	8.46	34.33		135	600	5.86	34.37		27.09	98	0.95
369	7.46	34.38		117							
492	6.54	34.35		108							
624	5.72	34.38		95							

HORIZON; June 26, 1955; 0616 GCT; 29°50'N, 117°24'W; sounding, 1500 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 34°.

107.50

0	16.45	33.57	5.51	338	0	16.45	33.57	5.51	24.57	338	0.00
8	16.44	33.51	5.57	343	10	16.44	33.50	5.58	24.52	342	0.03
25	15.88	33.48	5.71	331	20	16.43	33.50	5.59	24.52	342	0.07
37	15.24	33.46	6.32	320	30	15.58	33.47	5.95	24.69	326	0.10
46	13.88	33.40	5.68	297	50	13.56	33.40	5.62	25.07	290	0.16
54	13.20	33.40	5.59	284	75	12.00	33.46	4.97	25.41	258	0.23
62	12.44	33.40	5.20	270	100	10.25	33.64	4.03	25.87	214	0.29
71	12.14	33.45	5.06	260	150	8.90	34.01	2.20	26.38	165	0.39
82	11.46	33.46	4.54	248	200	8.38	34.16	1.76	26.58	147	0.46
90	10.84	33.58	4.40	228	250	7.70	34.17	1.46	26.69	136	0.54
111	9.62	33.68	3.51	201	300	7.30	34.19	1.20	26.76	129	0.60
129	8.88	33.86	3.06	176	400	6.90	34.35	0.40	26.94	112	0.73
166	8.92	34.10	2.11	159	500	6.23	34.39	0.36	27.07	100	0.84
211	8.20	34.16	1.72	144							
294	7.36	34.18	1.24	131							
395	6.96	34.34	0.41	113							
511	6.18	34.40	0.36	99							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

107.60

HORIZON; June 26, 1955; 1214 GCT; 29°30'N, 118°05'W; sounding, 1825 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 15°.

0	16.42	33.49	343	0	16.42	33.49			24.51	343	0.00
10	16.42	33.46	345	10	16.42	33.46			24.49	345	0.03
28	16.38	33.47	343	20	16.42	33.46			24.49	345	0.07
43	15.52	33.41	330	30	16.35	33.47			24.51	343	0.10
52	14.76	33.41	314	50	14.89	33.41			24.80	316	0.17
61	14.42	33.40	308	75	13.83	33.39			25.01	296	0.24
71	13.96	33.38	300	100	12.48	33.38			25.26	272	0.32
80	13.66	33.44	290	150	9.91	33.49			25.81	220	0.44
95	12.70	33.40	274	200	8.63	33.85			26.29	174	0.54
104	12.32	33.37	269	250	7.85	34.12			26.63	142	0.62
127	10.93	33.40	243	300	7.25	34.14			26.72	133	0.69
154	9.79	33.51	216	400	6.40	34.14			26.85	121	0.83
205	8.56	33.87	170	500	6.01	34.28			27.01	106	0.95
264	7.64	34.14	138	600	5.63	34.37			27.12	95	1.05
373	6.57	34.13	124								
498	6.02	34.28	106								
631	5.52	34.40	91								

107.70

HORIZON; June 26, 1955; 1748 GCT; 29°11.5'N, 118°45'W; sounding, 1400 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 42°.

0	16.60	33.51	5.62	346	0	16.60	33.51	5.62	24.48	346	0.00
8	16.58	33.51	5.62	346	10	16.57	33.51	5.60	24.48	346	0.03
23	16.54	33.51	5.50	345	20	16.55	33.51	5.53	24.49	345	0.07
34	16.54	33.53	5.43	343	30	16.54	33.52	5.45	24.50	344	0.10
42	16.55	33.54	5.51	342	50	16.52	33.51	5.54	24.51	343	0.17
49	16.52	33.51	5.55	343	75	15.69	33.65	5.60	24.80	316	0.25
56	16.50	33.59	5.52	338	100	14.10	33.48	5.69	25.01	296	0.33
64	15.84	33.56	5.60	325	150	11.02	33.40	4.83	25.54	245	0.47
74	15.70	33.65	5.59	316	200	8.87	33.78	3.83	26.21	182	0.58
81	15.62	33.68	5.63	312	250	7.90	33.96	2.95	26.50	154	0.66
98	14.26	33.49	5.69	297	300	7.42	34.04	2.30	26.63	142	0.74
116	13.08	33.38	5.64	283	400	6.70	34.17	0.88	26.83	123	0.88
154	10.83	33.41	4.74	241	500	5.90	34.27	0.51	27.02	105	1.00
200	8.87	33.78	3.83	182							
288	7.49	34.03	2.47	144							
396	6.74	34.16	0.95	124							
520	5.74	34.29	0.45	102							

107.80

HORIZON; June 26, 1955; 2301 GCT; 28°51'N, 119°21.5'W; sounding, 2000 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 32°.

0	17.69	33.69	357	0	17.69	33.69			24.37	357	0.00
9	17.66	33.69	356	10	17.64	33.69			24.38	356	0.04
25	17.51	33.69	353	20	17.53	33.69			24.40	354	0.07
38	17.51	33.72	350	30	17.50	33.70			24.42	352	0.11
47	17.51	33.68	353	50	17.51	33.68			24.41	353	0.18
54	17.50	33.68	353	75	15.78	33.54			24.69	326	0.26
62	16.44	33.60	336	100	14.05	33.41			24.98	299	0.34
69	16.03	33.54	331	150	11.18	33.44			25.55	244	0.48
82	15.48	33.54	319	200	9.63	33.88			26.16	186	0.59
89	14.92	33.48	312	250	8.83	34.04			26.42	162	0.68
108	13.49	33.39	290	300	7.92	34.11			26.61	144	0.76
130	12.24	33.40	266	400	7.22	34.27			26.84	122	0.90
171	10.17	33.55	220	500	6.60	34.40			27.03	104	1.02
221	9.32	34.00	172								
314	7.70	34.14	138								
423	7.10	34.31	118								
545	6.32	34.44	98								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; June 27, 1955; 0615, 0430 GCT; 28°33'N, 120°02.5'W; sounding, 2200 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 12°, 30°.

107.90

0	17.37	33.81r	5.40	-	0	17.37	(33.72)	5.40	(24.47)	(347)	(0.00)
10	17.38	33.64	5.51	353	10	17.38	33.64	5.51	24.41	353	0.04
29	17.20	33.63	5.57	351	20	17.30	33.63	5.55	24.42	352	0.07
43	17.17	33.65	5.63	348	30	17.20	33.63	5.57	24.44	350	0.11
58	17.14	33.62	5.62	350	50	17.16	33.64	5.62	24.45	349	0.18
67	17.06	33.62	5.68	347	75	15.79	33.49	5.87	24.65	330	0.26
76	15.54	33.46	5.90	326	100	13.60	33.30	5.84	24.98	299	0.34
91	14.45	33.34	6.04	313	150	10.54	33.46	4.35	25.68	232	0.48
100	13.60	33.30	5.84	299	200	9.26	33.80	3.64	26.16	186	0.58
115	12.96	33.34	5.58	285	250	8.43	34.01	3.10	26.46	158	0.67
142	10.86	33.42	4.52	240	300	7.94	34.10	2.30	26.60	145	0.75
171	9.94	33.59	4.04	213	400	7.19	34.21	1.02	26.80	126	0.89
228	8.78	33.95	3.39	168	500	6.46	34.34	0.51	27.00	107	1.01
295	8.00	34.09	2.47	146	600	5.80	34.36	0.35	27.09	98	1.12
410	7.10	34.23	0.98	124	700	5.30	34.41	0.34	27.20	88	1.22
548	6.10	34.31u	0.44	-	800	4.95	34.44	0.37	27.26	82	1.31
688	5.38	34.41	0.29	89	1000	4.15	34.51	0.58	27.41	68	1.48
					1200	3.60	34.53	0.70	27.47	62	
0a)	17.72u	33.72	3.86u	-	1500	2.90	34.58	1.18	27.59	51	
424	7.00	34.29	0.89	118	2000	2.16	34.64	1.85	27.70	41	
473	6.64	34.33	0.61	110							
527	6.34	34.38u	0.44	-							
589	5.92	34.35	0.36	100							
656	5.44	34.37	0.32	93							
732	5.18	34.41	0.34	87							
814	4.88	34.44	0.39	82							
904	4.44	34.45	0.50	76							
1008	4.08	34.51	0.59	68							
1127	3.79	34.53	0.66	64							
1255	3.46	34.53	0.77	60							
1403	3.11	34.57	1.00	54							
1571	2.72	34.60	1.28	48							
1759	2.40	34.69r	1.53	-							
1972	2.16	34.64	1.77	41							
2211	1.96	34.65	2.01	38							

HORIZON; June 25, 1955; 1337 GCT; 29°50.5'N, 115°52.5'W; sounding, 50 fm; wind, 310°, force 2; weather, overcast; sea, moderate; wire angle, 14°.

110.33

0	16.19	33.55	6.02	334	0	16.19	33.55	6.02	24.61	334	0.00
10	16.17	33.55	5.93	334	10	16.17	33.55	5.93	24.61	334	0.03
15	16.15	33.53	5.46	334	20	16.05	33.55	5.84	24.65	330	0.07
19	16.10	33.55	5.87	331	30	13.50	33.47	6.05	25.13	284	0.10
24	14.56	33.46	5.59	306	50	10.91	33.49	5.01	25.64	236	0.15
29	13.71	33.48	6.08	287	75	9.65		4.39			
34	12.86	33.44	5.63	274							
43	11.51	-	-	-							
53	10.64	33.49	4.94	232							
63	10.32	33.49	4.67	226							
77	9.54	-	4.37	-							

a) Overlapping casts; reconciliation of property curves when necessary.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

110.35

HORIZON; June 25, 1955; 1118, 1145 GCT; 29°44'N, 115°55'W; sounding, 380 fm; wind, 290°, force 3; weather, missing; sea, moderate; wire angle, 34°, 45°.

0	16.50	33.56	5.68	340	0	16.50	33.56	5.68	24.54	340	0.00
8	16.48	33.54	5.84	341	10	16.48	33.54	5.85	24.54	341	0.03
26	15.96	33.58	5.97	326	20	16.45	33.51	5.86	24.54	340	0.07
34	14.80	-	6.10	-	30	15.30	33.54	6.02	24.80	316	0.10
42	13.69	33.39	6.10	294	50	12.93	33.34	5.96	25.14	283	0.16
50	12.93	-	5.96	-	75	10.50	33.59	4.54	25.80	220	0.22
57	12.54	33.33	5.73	276	100	9.30	33.71	3.64	26.09	193	0.28
65	12.11	-	5.20	-	150	8.44	33.90	3.10	26.37	166	0.37
71	11.21	33.50	4.80	240	200	8.00	(34.10)	2.80	(26.60)	(145)	(0.45)
77	10.24	-	4.44	-	250	7.89	(34.17)	1.80	(26.66)	(139)	(0.52)
88	9.51	33.69	3.79	198	300	7.79	(34.21)	1.15	(26.73)	(132)	(0.59)
103	9.25	-	3.61	-							
113	9.07	33.74	3.50	188							
125	8.88	-	3.31	-							
167	8.13	34.04	2.98	152							
238	7.90	-	1.95	-							
331	7.72	34.28	0.83	128							

110.40

HORIZON; June 25, 1955; 0757 GCT; 29°36.5'N, 116°17'W; sounding, 1400 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 25°.

0	16.63	33.51	5.79	346	0	16.63	33.51	5.79	24.48	346	0.00
9	16.61	33.53	5.74	344	10	16.61	33.53	5.71	24.50	344	0.03
22	16.60	33.51	5.58	345	20	16.60	33.52	5.60	24.49	345	0.07
50	14.54	33.35	6.15	314	30	16.57	33.50	5.58	24.49	345	0.10
57	14.12	33.33	6.30	307	50	14.54	33.35	6.15	24.82	314	0.17
67	13.62	33.31	6.00	299	75	13.10	33.32	5.83	25.10	287	0.24
79	12.74	33.33	5.78	280	100	11.20	33.34	5.19	25.47	252	0.31
97	11.45	33.34	5.30	256	150	9.37	33.84	3.30	26.16	186	0.42
118	10.06	33.41	4.74	228	200	8.37	33.95	3.20	26.42	162	0.51
143	9.49	33.81	3.36	189	250	7.70	34.06	2.35	26.61	144	0.59
191	8.52	33.93	3.23	166	300	7.25	34.12	1.70	26.71	134	0.66
260	7.60	34.08	2.21	142	400	6.44	34.23	0.84	26.91	115	0.79
356	6.75	34.18	1.12	123	500	5.86	34.31	0.47	27.05	102	0.91
483	5.98	34.30	0.50	104	600	5.48	34.35	0.41	27.13	94	1.01
659	5.22	34.38	0.40	90	700	5.09	34.39	0.40	27.21	87	1.11
883	4.41	34.45	0.46	76	800	4.75	34.42	0.42	27.27	81	1.20
1189	3.48	34.52	0.88	61	1000	4.03	34.48	0.62	27.40	69	1.36

110.50

HORIZON; June 25, 1955; 0151 GCT; 29°16'N, 116°59'W; sounding, 2150 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 16°.

0	16.49	33.48	5.87	345	0	16.49	33.48	5.87	24.49	345	0.00
10	16.46	33.55	5.86	340	10	16.46	33.55	5.86	24.54	340	0.03
24	16.35	33.48	5.86	343	20	16.39	33.50	5.86	24.52	342	0.07
53	14.38	-	6.10	-	30	16.30	33.48	5.87	24.52	342	0.10
62	14.06	33.40	6.00	300	50	14.85	33.44	6.06	24.83	313	0.17
72	13.30	33.33	5.93	291	75	13.05	33.34	5.90	25.12	285	0.24
87	12.19	33.39	5.59	266	100	11.21	33.42	5.04	25.52	247	0.31
107	10.69	33.43	-	237	150	9.27	33.74	3.20	26.11	191	0.42
129	9.78	33.55	3.78	213	200	8.78	34.07	2.20	26.45	159	0.51
158	9.14	33.79	3.06	186	250	8.42	34.20	1.50	26.61	144	0.59
212	8.69	34.12	2.03	154	300	8.03	34.26	1.10	26.71	134	0.66
286	8.18	34.25	1.18	137	400	6.80	34.28	0.71	26.90	116	0.79
390	6.96	34.28	0.74	118	500	5.94	34.30	0.42	27.03	104	0.90
528	5.72	34.31	0.37	100	600	5.35	34.38	0.33	27.16	91	1.01
712	4.96	34.43	0.32	83	700	4.98	34.43	0.32	27.25	83	1.10
944	4.18	34.46	0.53	72	800	4.64	34.44	0.38	27.29	79	1.18
1252	3.33	34.52	0.82	60	1000	3.98	34.47	0.60	27.39	70	1.35

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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HORIZON; June 24, 1955; 1931 GCT; 28°56'N, 117°38.5'W; sounding, 2000+ fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 25°.

110.60

0	16.76	33.57	5.62	345	0	16.76	33.57	5.62	24.49	345	0.00
9	16.72	33.57	5.63	344	10	16.70	33.57	5.62	24.51	343	0.03
22	16.64	33.60	5.60	340	20	16.67	33.60	5.61	24.53	341	0.07
50	16.30	33.55	5.79	336	30	16.60	33.60	5.60	24.56	339	0.10
59	15.65	33.53	5.84	324	50	16.30	33.55	5.79	24.59	336	0.17
68	15.12	33.50	5.79	315	75	14.68	33.48	5.79	24.89	307	0.25
80	14.38	33.47	5.78	303	100	13.32	33.37	5.82	25.08	289	0.33
98	13.42	33.37	5.83	290	150	10.22	33.43	4.59	25.71	229	0.46
122	11.62	33.39	5.13	256	200	9.30	33.99	2.70	26.30	173	0.56
147	10.32	33.42	4.64	232	250	9.25	34.29	2.30	26.54	150	0.64
194	9.33	33.96	2.77	196	300	9.10	34.40	0.74	26.66	139	0.72
264	9.22	34.34	1.26	146	400	8.10	34.40	0.39	26.81	125	0.85
360	8.66	34.43	0.43	131	500	6.72	34.32	0.39	26.94	112	0.98
488	6.83	34.32	0.39	114	600	5.92	34.37	0.39	27.09	98	1.09
664	5.46	34.40	0.39	91	700	5.26	34.41	0.39	27.20	88	1.19
886	4.48	34.43	0.43	78	800	4.80	34.42	0.40	27.26	82	1.28
1188	3.68	34.52	0.78	63	1000	4.10	34.46	0.55	27.38	71	1.45

HORIZON; June 23, 1955; 1310 GCT; 28°34.5'N, 118°17.5'W; sounding, 2150 fm; wind, 340°, force 6; weather, clear; sea, high; wire angle, 22°.

110.70

0	16.98	33.58	5.51	348	0	16.98	33.58	5.51	24.46	348	0.00
9	16.97	33.58	5.53	348	10	16.97	33.58	5.49	24.46	348	0.03
23	16.96	33.58	5.40	348	20	16.96	33.58	5.42	24.46	348	0.07
52	16.24	33.54	5.69	336	30	16.88	33.58	5.42	24.48	346	0.10
61	15.69	33.49	5.66	328	50	16.33	33.55	5.64	24.58	337	0.17
70	15.38	33.50	5.70	320	75	14.90	33.47	5.75	24.84	312	0.25
83	14.14	33.40	5.81	302	100	12.98	33.39	5.34	25.18	280	0.33
102	12.82	33.39	5.22	277	150	10.12	33.72	3.30	25.95	206	0.45
124	11.23	33.49	4.01	242	200	9.81	34.11	2.02	26.31	172	0.55
149	10.17	33.72	3.32	206	250	9.34	34.37	1.17	26.58	146	0.63
199	9.81	34.11	2.07	172	300	8.88	34.39	0.85	26.68	137	0.70
270	9.16	34.39	0.99	141	400	7.89	34.39	0.54	26.83	123	0.84
366	8.26	34.39	0.60	128	500	6.63	34.36	0.40	26.99	108	0.96
496	6.66	34.36	0.41	108	600	5.93	34.39	0.37	27.10	97	1.06
671	5.53	34.41	0.37	91	700	5.36	34.42	0.40	27.20	88	1.16
891	4.58	34.46	0.57	76	800	4.89	34.44	0.50	27.27	81	1.26
1190	3.58	34.53	0.75	61	1000	4.19	34.48	0.63	27.39	70	1.42

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T}{cm/g}$	dyn. m

110.90

HORIZON; June 22-23, 1955; 2255, 0022 GCT; 27°55'N, 119°35.5'W; sounding, 2320 fm; wind, 300°, force 6; weather, clear; sea, very rough; wire angle, 23°, 23°.

0	17.94	33.71	5.33	362	0	17.94	33.71	5.33	24.31	362	0.00
10	17.92	33.71	5.32	360	10	17.92	33.71	5.32	24.34	360	0.04
29	17.86	33.73	5.40	358	20	17.87	33.72	5.35	24.35	359	0.07
41	17.83	33.77	5.41	355	30	17.85	33.74	5.41	24.37	357	0.11
52	16.64	33.57	5.64	342	50	16.89	33.61	5.61	24.49	345	0.18
61	16.26	33.53	5.65	336	75	15.58	33.48	5.40	24.69	326	0.26
70	15.86	33.45	5.74	334	100	14.06	33.32	5.62	24.90	306	0.34
78	15.38	33.48	5.78	322	150	11.03	33.45	5.77	25.60	240	0.48
92	14.66	-	5.66	-	200	9.23	33.90	2.67	26.24	179	0.59
101	13.97	33.32	5.62	304	250	8.64	34.09	2.03	26.49	155	0.67
123	12.25	33.33	5.01	271	300	8.17	34.17	1.60	26.62	143	0.75
151	10.99	33.45	4.66	240	400	7.23	34.26	0.83	26.82	124	0.89
197	9.31	33.87	2.78	182	500	6.24	34.33	0.44	27.01	106	1.01
255	8.60	34.10	2.00	154	600	5.51	34.34	0.39	27.11	96	1.12
360	7.59	34.22	1.11	131	700	5.02					
481	6.44	34.33	0.46	-	800	4.76					
616	5.44	-	0.39	-	1000	4.09					
					1200	3.55					
0a)	17.90	-	5.44	-	1500	2.80					
437	6.89	-	0.53	-	2000	2.15					
486	6.32	34.30	0.48	-							
542	5.94	34.34	0.33	101							
606	5.46	34.34	0.36	95							
674	5.08	34.42	0.35	85							
754	4.92	-	0.30	-							
833	4.65	-	0.40	-							
927	4.29	-	0.53	-							
1032	4.00	34.48	0.53	69							
1154	3.68	-	0.69	-							
1285	3.32	-	0.81	-							
1432	2.97	-	1.03	-							
1609	2.67	-	1.23	-							
1799	2.43	34.60	1.44	46							
2018	2.13	-	1.74	-							
2259	1.92	-	2.20	-							

113.30

HORIZON; June 21, 1955; 1109 GCT; 29°23'N, 115°18'W; sounding, 32 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

0	12.52	33.62	6.24	255	0	12.52	33.62	6.24	25.44	255	0.00
10	12.52	33.65	6.30	252	10	12.52	33.65	6.30	25.47	252	0.02
20	11.86	33.61	5.26	243	20	11.86	33.61	5.26	25.56	243	0.05
25	11.30	33.62	4.38	233	30	11.14	33.64	4.21	25.71	229	0.07
30	11.14	33.64	4.21	229							
35	11.06	33.61	4.14	229							
41	11.02	33.62	4.12	228							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; June 21, 1955; 1354 GCT; 29°12'N, 115°39'W; sounding, 850 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 19°.

113.35

0	16.87	33.57	5.65	347	0	16.87	33.57	5.65	24.47	347	0.00
10	16.86	33.56	5.66	348	10	16.86	33.56	5.66	24.46	348	0.03
29	16.82	33.55	5.70	348	20	16.85	33.55	5.68	24.46	348	0.07
44	16.62	33.51	5.70	346	30	16.81	33.54	5.70	24.46	348	0.10
53	15.66	33.42	5.72	332	50	16.00	33.45	5.72	24.58	337	0.17
63	15.00	33.36	5.98	323	75	14.23	33.30	5.94	24.85	311	0.25
73	14.46	33.31	5.98	315	100	11.36	33.35	4.60	25.45	254	0.33
82	13.18	33.29	5.69	311	150	9.39	33.71	3.60	26.07	195	0.44
96	11.76	33.32	4.72	263	200	8.36	33.94	2.98	26.41	163	0.53
105	10.81	33.40	4.50	241	250	7.62	34.03	2.24	26.60	145	0.61
128	9.92	33.49	4.12	219	300	7.38	34.13	1.75	26.71	134	0.68
156	9.32	33.78	3.38	188	400	6.93	34.22	0.70	26.84	122	0.82
206	8.18	33.93	2.86	161	500	6.19	34.26	0.49	26.96	110	0.94
267	7.50	34.08	2.03	140	600	5.71	34.32	0.40	27.08	99	1.05
376	7.10	34.21	0.85	125							
503	6.19	34.26	0.48	110							
635	5.59	34.35	0.39	96							

HORIZON; June 21, 1955; 1704 GCT; 29°03'N, 115°58.5'W; sounding, 1050 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 18°.

113.40

0	17.13	33.58	5.45	352	0	17.13	33.58	5.45	24.42	352	0.00
10	17.11	33.56	5.42	353	10	17.11	33.56	5.42	24.41	353	0.04
28	17.10	33.57	5.51	352	20	17.10	33.57	5.48	24.41	353	0.07
42	17.12	33.50	5.50	357	30	17.10	33.56	5.51	24.41	353	0.11
51	17.04	33.55	5.50	352	50	17.06	33.55	5.50	24.41	353	0.18
60	16.27	33.48	5.70	341	75	14.90	33.41	5.73	24.80	316	0.26
71	15.38	33.45	5.70	324	100	12.54	33.36	5.21	25.24	274	0.34
80	14.10	33.36	5.80	304	150	9.91	33.56	3.90	25.87	214	0.46
93	13.07	33.38	5.45	283	200	10.09	34.21	1.67	26.33	170	0.56
103	12.24	33.35	5.06	270	250	8.27	34.03	2.54	26.49	155	0.64
127	10.82	33.43	4.21	239	300	7.21	34.03	2.10	26.65	140	0.72
153	9.81	33.58	3.88	211	400	6.70	34.19	0.98	26.85	121	0.85
204	10.06	34.22	1.59	168	500	6.30	34.32	0.38	27.00	107	0.97
264	7.78	33.99	2.73	151	600	5.80	34.35	0.27	27.09	98	1.08
371	6.82	34.12	1.27	128							
496	6.36	34.31	0.42	108							
627	5.63	34.36	0.26	96							

HORIZON; June 21, 1955; 2232 GCT; 28°43'N, 116°36'W; sounding, 1900 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 10°.

113.50

0	16.82	33.56	5.60	347	0	16.82	33.56	5.60	24.47	347	0.00
10	16.80	33.54	5.67	348	10	16.80	33.54	5.67	24.46	348	0.03
30	16.68	33.53	5.68	346	20	16.73	33.54	5.67	24.47	347	0.07
44	16.68	33.51	5.70	348	30	16.68	33.53	5.68	24.48	346	0.10
54	16.28	33.48	5.85	341	50	16.51	33.49	5.79	24.50	344	0.17
63	15.78	33.43	5.80	334	75	15.30	33.42	5.89	24.71	324	0.26
73	15.36	33.42	5.88	326	100	13.48	33.25	5.72	24.96	300	0.34
83	14.82	33.35	5.95	319	150	10.94	33.81	3.30	25.89	212	0.46
96	13.82	33.25	5.82	307	200	10.71	34.26	1.30	26.27	176	0.56
106	12.82	33.27	5.50	286	250	9.83	34.28	1.28	26.44	160	0.65
129	11.12	33.44	4.39	243	300	8.99	34.32	1.11	26.61	144	0.73
158	10.92	33.93	2.07	203	400	8.15	34.39	0.41	26.80	126	0.87
211	10.67	-	1.29	-	500	6.96	34.34	0.33	26.93	113	0.99
272	9.33	34.29	1.28	151	600	6.04	34.33	0.30	27.04	103	1.11
381	8.33	34.39	0.46	129							
508	6.85	34.34	0.33	112							
642	5.62	34.33	0.30	98							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

113.60

HORIZON; June 22, 1955; 0419 GCT; 28°21.5'N, 117°16.5'W; sounding, 2000 fm; wind, 330°, force 5; weather, overcast; sea, high; wire angle, 25°.

0	16.88	-	5.62	-	0	16.88		5.62			
8	16.88	33.53	5.75	350	10	16.87		5.76			
26	16.66	-	5.70	-	20	16.75		5.74			
40	15.84	-	5.87	-	30	16.49		5.72			
48	15.38	-	5.89	-	50	15.30		5.88			
57	14.92	33.40	5.86	318	75	13.05		5.91			
65	14.28	-	6.09	-	100	11.09		4.98			
73	13.19	-	5.95	-	150	9.62		2.70			
85	12.39	-	5.70	-	200	10.21		1.16			
93	11.68	-	5.26	-	250	9.98		0.74			
113	10.01	33.39	4.60	229	300	9.67		0.53			
138	9.70	-	2.94	-	400	8.68		0.30			
184	10.21	34.28	1.22	166	500	7.51		0.27			
238	10.06	-	0.83	-	600	(6.38)		(0.29)			
340	9.34	-	0.38	-							
462	7.95	-	0.27	-							
592	6.46	34.42	0.29	101							

113.70

HORIZON; June 22, 1955; 0952 GCT; 27°58.5'N, 118°01'W; sounding, 1900 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 23°.

0	17.26		5.51		0	17.26		5.51			
9	17.24		5.34		10	17.24		5.34			
28	16.72		5.48		20	17.19		5.34			
41	15.99		5.52		30	16.62		5.50			
51	15.73		5.55		50	15.79		5.53			
59	15.20		5.72		75	13.59		5.26			
69	14.12		5.25		100	11.98		4.67			
78	13.26		5.30		150	11.03		1.65			
91	12.44		4.98		200	9.75		1.50			
99	12.02		4.71		250	9.36		1.04			
119	10.76		4.32		300	8.86		0.78			
142	10.89		2.15		400	7.81		0.43			
187	9.83		1.52		500	6.91		0.27			
240	9.44		1.11		600	(6.14)					
338	8.41		0.61								
455	7.28		0.29								
582	6.26		0.27								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	$\delta_{T_3}^{-5}$	Z	T	S	O ₂	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; June 22, 1955; 1700, 1512 GCT; 27°42'N, 118°36.5'W; sounding, 2150 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 23°, 24°.

113.80

0	17.45	33.60	5.59	358	0	17.45	33.60	5.59	24.36	358	0.00
9	17.34	33.61	5.24	355	10	17.34	33.60	5.25	24.39	355	0.04
28	17.29	33.57	5.58	356	20	17.33	33.58	5.45	24.38	356	0.07
41	16.60	33.53	5.71	344	30	17.28	33.56	5.60	24.38	356	0.11
50	15.82	33.63r	5.97	-	50	15.82	33.46	5.97	24.62	333	0.18
59	15.36	33.41	6.02	326	75	14.00	33.31	5.96	24.91	305	0.26
68	14.62	33.35	6.02	316	100	12.29	33.36	5.28	25.29	269	0.33
78	13.68	33.30	5.92	300	150	10.25	33.87	2.73	26.05	197	0.45
90	12.82	33.30	5.77	284	200	10.42	34.24	1.40	26.31	172	0.54
99	12.34	33.36	5.30	271	250	9.95	34.33	1.15	26.46	158	0.63
122	10.99	33.44	4.50	241	300	9.51	34.38	0.91	26.56	148	0.71
148	10.28	33.86	2.90	198	400	8.42	34.39	0.52	26.75	130	0.85
198	10.44	34.24	1.41	173	500	7.23	34.39	0.30	26.92	114	0.98
257	9.90	34.34	1.12	157	600	6.38	34.40	0.32	27.05	102	1.09
364	8.92	34.40	0.65	137	700	5.60	34.38	0.27	27.13	94	1.20
487	7.38	34.35	0.42	118	800	5.01	34.45	0.33	27.26	82	1.29
618	6.20	34.40	0.32	100	1000	4.22	34.48	0.51	27.38	71	1.46
					1200	3.64	34.53	0.68	27.47	62	
0a)	17.43	-	5.50	-	1500	3.00	34.58	1.08	27.58	52	
445	7.82	-	0.41	-	2000	2.23	34.64	1.76	27.68	42	
493	7.27	34.38	0.30	115							
547	6.84	-	0.31	-							
609	6.20	-	0.25	-							
675	5.70	34.38	0.24	95							
748	5.39	-	0.30	-							
826	4.90	34.46	0.34	80							
913	4.62	34.47	0.38	76							
1012	4.19	34.49	0.53	70							
1127	3.84	34.52	0.62	65							
1251	3.50	34.53	0.73	61							
1395	3.19	34.56	1.00	55							
1562	2.88	34.59	1.17	50							
1751	2.52	34.61	1.42	46							
1964	2.25	34.47r	1.72	-							
2203	2.00	34.65	2.02	39							

HORIZON; June 21, 1955; 0625 GCT; 28°55.5'N, 114°40'W; sounding, 40 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 04°.

117.26

0	14.74	33.55	6.98	303	0	14.74	33.55	6.98	24.93	303	0.00
10	14.74	33.58	7.00	301	10	14.74	33.58	7.00	24.95	301	0.03
15	12.85	33.50	5.89	270	20	12.27	33.50	4.96	25.40	259	0.06
20	12.27	33.50	4.96	259	30	11.28	33.53	4.07	25.61	239	0.08
25	11.94	33.53	4.51	251	50	10.04	33.66	2.68	25.92	209	0.13
30	11.28	33.53	4.07	239							
35	11.02	33.60	3.24	230							
40	10.68	33.61	2.87	223							
50	10.04	33.66	2.68	209							
60	9.99	33.81	1.95	197							

HORIZON; June 21, 1955; 0416 GCT; 28°48'N, 114°56'W; sounding, 52 fm; wind, 300°, force 4; weather, missing; sea, rough; wire angle, 15°.

117.30

0	15.72	33.58	6.26	321	0	15.72	33.58	6.26	24.74	321	0.00
10	15.70	33.60	6.11	319	10	15.70	33.60	6.11	24.76	319	0.03
14	15.38	33.62	6.10	311	20	13.40	33.58	5.05	25.23	275	0.06
19	13.70	33.57	5.23	281	30	11.22	33.69	3.00	25.73	227	0.09
24	12.10	33.61	4.40	248	50	10.01	33.88	1.86	26.10	192	0.13
29	11.22	33.69	3.00	227	75	9.68	34.02	1.35	26.27	176	0.18
34	10.86	33.71	2.67	219							
44	10.22	33.88	2.00	196							
53	9.87	33.88	1.82	190							
63	9.64	33.89	1.69	186							
77	9.70	34.04	1.32	176							

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a) Overlapping casts; reconciliation of property curves when necessary.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

117.40

HORIZON; June 20, 1955; 2157, 2212 GCT; 28°27.5'N, 115°35'W; sounding, 500 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 36°, 36°.

0	17.00	33.57	5.70	350	0	17.00	33.57	5.70	24.44	350	0.00
8	16.96	33.57	5.67	349	10	16.92	33.57	5.67	24.45	349	0.03
24	16.84	33.59	5.73	345	20	16.88	33.58	5.70	24.48	346	0.07
36	16.72	33.54	5.66	346	30	16.80	33.58	5.73	24.49	345	0.10
44	16.10	33.48	5.74	337	50	15.61	33.44	5.88	24.66	329	0.17
51	15.54	33.44	5.90	328	75	14.27	33.37	5.86	24.90	306	0.25
60	15.00	33.43	5.89	318	100	12.60	33.38	5.38	25.24	274	0.32
66	14.70	33.40	5.82	313	150	10.25	33.66	3.29	25.89	212	0.45
76	14.21	33.37	5.88	306	200	9.69	34.18	1.78	26.38	165	0.54
85	13.76	33.37	5.83	297	250	9.10	34.30	1.32	26.58	147	0.62
105	12.12	33.40	5.16	263	300	8.43	34.31	1.03	26.69	136	0.70
					400	7.44	34.31	0.62	26.84	122	0.83
129	10.96	33.50	4.16	236	500	6.79	34.34	0.47	26.94	112	0.95
171	9.64	33.95	2.50	182							
223	9.42	34.27	1.51	154							
315	8.24	34.31	0.99	134							
427	7.24	34.31	0.53	120							
548	6.53	34.38	0.46	105							

117.50

HORIZON; June 20, 1955; 1444 GCT; 28°02'N, 116°23.5'W; sounding, 2325 fm; 320°, force 4; weather, overcast; sea, very rough; wire angle, 23°.

0	16.53	33.51	5.33	344	0	16.53	33.51	5.33	24.50	344	0.00
10	16.52	33.49	5.59	345	10	16.52	33.49	5.59	24.49	345	0.03
29	15.86	33.48	5.85	332	20	16.19	33.49	5.76	24.57	338	0.07
43	15.40	33.43	5.95	326	30	15.85	33.48	5.85	24.64	331	0.10
53	15.16	33.44	5.92	320	50	15.23	33.44	5.94	24.73	322	0.17
62	14.88	33.43	5.78	315	75	14.57	33.42	5.90	24.87	309	0.25
71	14.71	33.42	5.89	312	100	13.20	33.37	5.86	25.12	286	0.32
81	13.93	33.48	5.92	292	150	9.86	33.70	3.80	25.98	204	0.45
95	13.50	33.37	5.89	291	200	9.76	34.20	1.80	26.38	165	0.54
104	12.43	33.39	5.75	270	250	9.64	34.41	1.10	26.58	147	0.62
125	11.00	33.37	4.96	246	300	8.97	34.39	0.83	26.67	138	0.69
153	9.80	33.78	3.74	196	400	7.61	34.32	0.67	26.82	124	0.83
203	9.75	34.21	1.71	164	500	6.78	34.34	0.45	26.95	111	0.95
261	9.54	34.42	0.96	145	600	6.20	34.40	0.29	27.07	100	1.06
367	8.00	34.32	0.73	129							
489	6.81	34.34	0.47	112							
618	6.12	34.42	0.26	97							

117.60

HORIZON; June 20, 1955; 0902 GCT; 27°48'N, 116°52'W; sounding, 1850 fm; wind, 320°, force 5; weather, missing; sea, very rough; wire angle, 27°.

0	17.81	33.60	5.52	366	0	17.81	33.60	5.52	24.27	366	0.00
9	17.81	33.60	5.38	366	10	17.81	33.60	5.40	24.27	366	0.04
26	17.80	33.57	5.52	368	20	17.81	33.59	5.47	24.26	367	0.07
40	15.00	33.41	6.14	318	30	17.72	33.55	5.58	24.26	367	0.11
53	12.86	33.35	5.96	281	50	13.20	33.36	6.02	25.10	287	0.18
62	12.38	33.35	5.40	272	75	11.91	33.38	4.92	25.38	261	0.24
71	12.08	33.37	5.10	265	100	10.22	33.74	3.06	25.95	206	0.30
84	11.14	33.46	4.07	242	150	9.65	34.10	1.70	26.33	170	0.40
92	10.56	33.58	3.46	223	200	9.69	34.33	1.07	26.51	153	0.48
105	10.08	33.84	2.98	196	250	9.20	34.36	0.80	26.61	144	0.56
131	9.84	33.98	2.11	182	300	8.63	34.37	0.64	26.70	135	0.63
157	9.62	34.14	1.67	167	400	7.70	34.38	0.38	26.85	121	0.76
210	9.69	34.36	1.02	152	500	6.65	34.33	0.38	26.95	111	0.88
269	8.92	34.36	0.74	140	600	6.06	34.38	0.30	27.08	99	0.99
376	8.00	34.39	0.38	124							
502	6.64	34.33	0.38	110							
631	5.88	34.42	0.26	94							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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5506

HORIZON; June 20, 1955; 0322 GCT; 27°27.5'N, 117°32'W; sounding, 2200 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 04°.

117.70

0	17.03	33.58	5.90	350	0	17.03	33.58	5.90	24.44	350	0.00
10	16.96	33.53	5.40	352	10	16.96	33.53	5.40	24.42	352	0.04
30	16.07	33.62	6.18	325	20	16.70	33.55	5.55	24.50	344	0.07
45	12.06	33.70u	5.19	-	30	16.07	33.62	6.18	24.70	325	0.10
55	11.18	33.47	4.82	242	50	11.55	33.48	4.99	25.51	248	0.16
65	10.58	33.46	4.36	232	75	10.18	33.65	3.32	25.89	212	0.22
75	10.18	33.65	3.32	212	100	9.78	33.92	2.26	26.16	186	0.27
85	10.05	33.76	2.90	202	150	9.40	34.22	1.49	26.46	158	0.35
100	9.78	33.92	2.26	186	200	8.82	34.24	1.25	26.56	148	0.43
109	9.74	34.04	2.11	176	250	8.59	34.34	0.75	26.69	136	0.50
133	9.51	34.16	1.87	163	300	8.33	34.39	0.45	26.76	129	0.57
162	9.50	34.29	1.22	154	400	7.42	34.40	0.28	26.91	115	0.70
215	8.62	34.23	1.26	145	500	6.61	34.38	0.27	27.01	106	0.81
278	8.48	34.38	0.56	132	600	5.83	34.42	0.28	27.13	94	0.92
391	7.48	34.40	0.28	116							
518	6.45	34.38	0.27	104							
653	5.40	34.48	0.28	84							

HORIZON; June 19, 1955; 2105, 1918 GCT; 27°01.5'N, 118°10.5'W; sounding, 2100 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 30°, 34°.

117.80

0	17.57	33.62	5.44	359	0	17.57	33.62	5.44	24.35	359	0.00
8	17.48	33.60	5.43	359	10	17.46	33.60	5.41	24.36	358	0.04
25	17.31	33.62	5.34	353	20	17.36	33.61	5.37	24.38	356	0.07
36	16.16	33.63	5.62	326	30	17.01	33.63	5.37	24.49	345	0.11
51	15.62	33.51	5.69	324	50	15.67	33.51	5.69	24.70	325	0.17
59	15.34	33.50	5.65	319	75	14.65	33.43	5.65	24.85	311	0.25
67	15.10	33.48	5.56	316	100	12.84	33.38	5.18	25.20	278	0.33
79	14.40	33.40	5.74	308	150	9.60	33.69	3.46	26.02	200	0.45
88	13.82	33.42	5.52	296	200	10.16	34.16	1.64	26.29	174	0.54
99	12.99	33.38	5.22	281	250	9.32	34.31	1.23	26.55	149	0.63
123	10.75	33.48	4.34	234	300	9.04	34.36	1.10	26.64	141	0.70
146	9.79	33.68	3.64	204	400	7.93	34.38	0.37	26.82	124	0.84
194	10.22	34.12	1.77	178	500	6.92	34.42	0.25	27.00	107	0.96
250	9.32	34.31	1.23	149	600	6.07	34.42	0.28	27.11	96	1.07
348	8.70	34.40	-	133	700	5.43	34.42	0.23	27.19	89	1.17
467	7.30	34.41	0.25	113	800	4.85	34.46	0.37	27.29	79	1.26
594	6.12	34.42	0.26	97	1000	4.06	34.50	0.52	27.41	68	1.42
					1200	3.50	34.54	0.73	27.49	60	
0a)	17.48	33.66	5.13	-	1500	2.80	34.57	1.10	27.59	51	
403	7.86	34.38	0.36	123	2000	2.20	34.60	1.85	27.66	44	
445	7.30	34.37	0.35	116							
492	7.01	34.42	0.25	108							
547	6.43	34.42	0.26	101							
606	6.00	34.50r	0.30	-							
672	5.60	34.42	0.22	90							
744	5.13	34.43	0.28	85							
826	4.78	34.47	0.40	78							
918	4.38	34.48	0.46	73							
1025	3.98	34.51	0.55	67							
1141	3.66	34.52	0.64	63							
1273	3.30	34.57	0.79	56							
1430	2.98	34.57	0.99	53							
1607	2.70	34.56u	1.27	-							
1807	2.41	34.60	1.56	46							
2032	2.13	34.60	1.91	43							

a) Overlapping casts; reconciliation of property curves when necessary.

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5506

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}}{\text{g}}$	dyn. m

120.25

HORIZON; June 18, 1955; 0328 GCT; 28°23'N, 114°14.5'W; sounding, 25 fm; wind, 310°, force 5; weather, overcast; sea, rough; wire angle, 04°.

0	16.03	33.60	6.10	327	0	16.03	33.60	6.10	24.68	327	0.00
10	16.01	33.57	6.13	328	10	16.01	33.57	6.13	24.67	328	0.03
15	15.96	33.57	6.13	327	20	13.82	33.53	6.81	25.11	286	0.06
20	13.82	33.53	6.81	286	30	12.22	33.52	4.74	25.42	257	0.09
25	13.33	33.58	5.85	273							
30	12.22	33.52	4.74	257							

120.30

HORIZON; June 18, 1955; 0654 GCT; 28°12'N, 114°34'W; sounding, 50 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 15°.

0	14.98	33.58	6.85	306	0	14.98	33.58	6.85	24.90	306	0.00
10	14.98	33.56	6.95	308	10	14.98	33.56	6.95	24.88	308	0.03
14	14.96	33.58	7.01	305	20	14.83	33.55	7.16	24.91	305	0.06
19	14.84	33.55	7.17	305	30	14.20	33.58	6.59	25.08	289	0.09
24	14.48	33.58	6.83	296	50	11.00	33.44	4.60	25.58	241	0.14
28	14.29	33.59	6.59	291							
33	13.94	33.57	6.60	285							
43	11.20	33.40	5.11	248							
53	11.21	33.57	3.70	236							
67	10.27	33.81	1.87	202							

120.35

HORIZON; June 18, 1955; 0938 GCT; 28°03'N, 114°55'W; sounding, 42 fm; wind, 330°, force 2; weather, clear; sea, slight; wire angle, 02°.

0	16.67	33.59	5.78	341	0	16.67	33.59	5.78	24.53	341	0.00
10	16.68	33.58	5.76	342	10	16.68	33.58	5.76	24.52	342	0.03
15	16.67	33.60	5.83	341	20	16.67	33.58	5.73	24.52	342	0.07
20	16.67	33.58	5.73	342	30	16.64	33.57	5.72	24.52	342	0.10
25	16.66	33.56	5.61	343	50	15.22	33.55	5.88	24.83	313	0.17
30	16.64	33.57	5.72	342							
35	16.52	33.58	5.88	339							
40	16.25	33.58	5.84	333							
50	15.22	33.55	5.88	313							

120.45

HORIZON; June 18, 1955; 1444 GCT; 27°42.5'N, 115°33'W; sounding, 1240 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 10°.

0	15.15	33.46	6.10	318	0	15.15	33.46	6.10	24.78	318	0.00
10	15.14	33.46	6.48	318	10	15.14	33.46	6.48	24.78	318	0.03
30	14.42	33.44	6.12	305	20	14.94	33.45	6.38	24.82	314	0.06
55	12.35	33.39	5.46	269	30	14.42	33.44	6.12	24.91	305	0.09
69	11.18	33.36	4.71	250	50	12.63	33.40	5.54	25.25	273	0.15
78	10.99	33.52	3.92	235	75	11.05	33.49	4.25	25.62	238	0.22
94	10.20	33.70	3.36	208	100	10.19	33.76	3.34	25.98	204	0.27
118	10.14	33.95	2.70	189	150	9.88	34.16	1.97	26.33	170	0.37
152	9.86	34.16	1.97	169	200	9.18	34.25	1.60	26.52	152	0.45
177	9.28	34.16	2.11	160	250	8.93	34.32	1.10	26.62	143	0.52
235	9.04	34.31	1.19	145	300	8.37	34.33	0.82	26.71	134	0.60
319	8.19	34.33	0.78	131	400	7.46	34.37	0.53	26.88	118	0.72
431	7.22	34.38	0.45	114	500	6.67	34.40	0.37	27.01	106	0.84
581	6.06	34.40	0.34	98	600	5.95	34.40	0.35	27.11	96	0.95
796	4.90	34.43	0.48	82	700	5.40	34.42	0.41	27.19	89	1.05
1043	4.16	34.52	0.54	68	800	4.86	34.44	0.48	27.26	82	1.14
1370	3.16	34.58	0.89	54	1000	4.28	34.50	0.53	27.39	70	1.30

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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HORIZON; June 18, 1955; 1800 GCT; 27°34'N, 115°49'W; sounding, 2150 fm; wind, 330°, force 4; weather, overcast; sea, rough; wire angle, 31°.

120.50

0	17.57	33.62	5.59	359	0	17.57	33.62	5.59	24.35	359	0.00
8	17.56	33.60	5.54	360	10	17.55	33.60	5.55	24.34	360	0.04
21	17.54	33.60	5.68	360	20	17.54	33.60	5.65	24.34	360	0.07
47	15.22	33.39	6.00	325	30	17.49	33.60	5.72	24.34	360	0.11
55	14.36	33.33	6.12	312	50	14.80	33.36	6.06	24.78	318	0.18
64	13.83	33.35	6.05	300	75	12.80	33.38	5.28	25.21	277	0.25
77	12.60	33.39	5.10	273	100	10.49	33.62	4.05	25.82	219	0.31
93	10.80	33.55	-	230	150	10.29	34.16	2.70	26.27	176	0.41
112	10.28	33.72	3.94	208	200	10.39	34.38	2.00	26.42	162	0.50
136	10.25	34.11	3.24	180	250	10.43	34.55	1.15	26.54	150	0.58
180	10.34	34.27	2.28	168	300	9.80	34.54	0.61	26.65	140	0.65
242	10.47	34.55	1.26	151	400	8.45	34.46	0.30	26.80	126	0.79
327	9.44	34.52	0.50	136	500	7.14	34.38	0.26	26.93	113	0.92
443	7.86	34.42	0.26	120	600	6.16	34.36	0.28	27.05	102	1.03
600	6.16	34.36	0.28	102	700	5.55	34.38	0.31	27.14	93	1.13
801	4.96	34.42	0.36	84	800	4.96	34.42	0.35	27.24	84	1.23
1088	3.98	34.50	0.46	68	1000	4.26	34.48	0.42	27.37	72	1.40

HORIZON; June 19, 1955; 0002 GCT; 27°13'N, 116°30'W; sounding, 2050 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 06°.

120.60

0	17.83	33.58	5.62	368	0	17.83	33.58	5.62	24.25	368	0.00
10	17.77	33.57	5.56	367	10	17.77	33.57	5.56	24.26	367	0.04
25	17.66	33.56	5.56	365	20	17.69	33.57	5.56	24.27	366	0.07
55	14.36	33.37	6.10	308	30	17.65	33.56	5.57	24.28	365	0.11
65	13.12	33.38	5.61	284	50	16.10	33.44	5.89	24.56	339	0.18
75	11.56	33.38	4.82	255	75	11.56	33.38	4.82	25.44	255	0.25
89	11.13	33.48	3.93	240	100	10.65	33.59	3.48	25.76	224	0.32
109	10.30	33.66	3.26	213	150	9.90	34.06	2.26	26.26	177	0.42
133	10.08	33.91	2.53	191	200	9.46	34.22	1.50	26.46	158	0.50
162	9.76	34.13	2.05	170	250	9.06	34.31	1.04	26.58	146	0.58
213	9.38	34.25	1.28	156	300	8.57	34.35	0.84	26.70	135	0.65
292	8.66	34.35	0.87	137	400	7.33	34.35	0.52	26.88	118	0.78
399	7.36	34.35	0.52	118	500	6.42	34.35	0.36	27.01	106	0.90
542	6.12	34.35	0.29	102	600	5.74	34.36	0.32	27.09	98	1.01
732	5.12	34.38	0.41	88	700	5.25	34.38	0.40	27.18	90	1.11
970	4.15	34.47	0.54	72	800	4.83	34.40	0.47	27.25	83	1.20
1279	3.40	34.52	0.84	60	1000	4.04	34.48	0.57	27.39	70	1.37

HORIZON; June 19, 1955; 0510 GCT; 26°53'N, 117°11'W; sounding, 2100 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 14°.

120.70

0	16.73	33.51	5.67	349	0	16.73	33.51	5.67	24.45	349	0.00
10	16.70	33.51	5.83	346	10	16.70	33.51	5.83	24.48	346	0.03
24	15.98	33.50	5.92	333	20	16.40	33.51	5.91	24.52	342	0.07
52	11.28	33.41	4.73	248	30	14.65	33.48	5.66	24.90	306	0.10
63	10.70	33.45	4.61	235	50	11.42	33.41	4.79	25.48	251	0.16
72	10.43	33.52	4.01	226	75	10.38	33.55	3.86	25.78	222	0.22
87	10.18	33.68	3.33	210	100	10.02	33.86	2.91	26.08	194	0.27
106	10.00	33.91	2.86	190	150	9.64	34.16	1.93	26.38	166	0.36
129	9.93	34.09	2.05	175	200	9.34	34.32	1.13	26.55	149	0.44
157	9.65	34.18	1.90	165	250	8.89	34.40	0.78	26.69	136	0.51
210	9.26	34.34	1.09	146	300	8.29	34.42	0.49	26.80	126	0.58
285	8.52	34.42	0.52	130	400	6.78	34.42	0.44	27.02	105	0.70
388	6.92	34.42	0.45	107	500	6.00	34.40	0.37	27.10	97	0.80
527	5.86	34.40	0.35	95	600	5.42	34.42	0.35	27.19	89	0.90
716	4.92	34.45	0.37	81	700	4.94	34.45	0.36	27.27	81	0.99
953	4.14	34.52	0.59	68	800	4.60	34.48	0.42	27.33	75	1.08
1264	3.34	34.59	0.87	55	1000	4.00	34.54	0.62	27.44	65	1.23

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

120.80

HORIZON; June 19, 1955; 1028, 1408 GCT; 26°33'N, 117°48.5'W; sounding, 2100 fm; wind, 330°, force 4; weather, missing; sea, rough; wire angle, 29°, 14°.

0	16.89	33.59	5.84	346	0	16.89	33.59	5.84	24.48	346	0.00
9	16.86	33.58	5.78	346	10	16.84	33.58	5.77	24.48	346	0.03
26	15.99	33.48	5.73	334	20	16.40	33.53	5.73	24.54	340	0.07
39	14.96	33.42	5.95	317	30	15.63	33.45	5.78	24.67	328	0.10
48	14.50	33.45	5.95	305	50	14.42	33.45	5.95	24.92	304	0.17
58	13.82	33.35	5.95	300	75	13.18	33.31	5.88	25.07	290	0.24
67	13.65	33.44	5.91	289	100	11.57	33.32	5.30	25.38	260	0.31
75	13.18	33.31	5.88	290	150	9.69	34.03	2.67	26.27	176	0.42
88	12.09	33.26	5.47	274	200	10.05	34.34	1.15	26.45	159	0.50
96	11.78	33.29	5.38	266	250	9.49	34.42	0.73	26.61	144	0.58
116	10.46	33.44	4.60	232	300	8.88	34.42	0.53	26.71	134	0.65
138	9.84	33.80	2.90	196	400	7.78	34.40	0.34	26.87	119	0.79
181	10.19	34.26	1.48	167	500	6.67	34.38	0.30	27.00	107	0.90
234	9.67	34.41	0.82	147	600	5.83	34.38	0.30	27.10	97	1.01
330	8.50	34.42	0.48	129	700	5.35	34.42	0.29	27.20	88	1.11
					800	4.78	34.45	0.29	27.29	79	1.20
0a)	16.78	33.53	5.66	-	1000	4.04	34.52	0.45	27.42	67	1.36
465	7.14	34.39	0.24	112	1200	3.47	34.55	0.76	27.50	59	
519	6.47	34.37	0.34	105	1500	2.84	34.58	1.08	27.59	51	
577	6.00	34.37	0.29	99	2000	2.10	34.64	1.75	27.70	40	
644	5.59	34.40	0.33	92							
718	5.22	34.42	0.28	86							
800	4.78	34.45	0.29	79							
886	4.45	34.49	0.45	73							
984	4.13	34.51	0.45	68							
1093	3.74	34.53	0.60	63							
1218	3.45	34.55	0.78	59							
1354	3.13	34.57	0.89	54							
1508	2.83	34.58	1.10	51							
1683	2.52	34.61	1.35	46							
1880	2.26	34.64	1.68	42							
2109	2.05	34.65	1.83	39							
2349	1.87	34.66	2.05	37							

123.37

HORIZON; June 17, 1955; 1447 GCT; 27°24'N, 114°39'W; sounding, 35 fm; wind, 360°, force 1; weather, clear; sea, rough; wire angle, 03°.

0	12.99	33.86	5.82	246	0	12.99	33.86	5.82	25.53	246	0.00
10	12.60	33.84	5.42	240	10	12.60	33.84	5.42	25.60	240	0.02
15	12.08	33.78	4.75	235	20	11.54	33.85	4.59	25.81	220	0.05
20	11.54	33.85	4.59	220	30	10.82	33.78	3.09	25.88	213	0.07
25	10.80	33.69	3.63	219	50	10.54	34.02	2.02	26.11	191	0.11
30	10.82	33.78	3.09	213							
35	10.75	33.86	2.78	206							
40	10.62	33.93	2.54	199							
50	10.54	34.02	2.02	191							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; June 17, 1955; 1205 GCT; 27°16.5'N, 114°52'W; sounding, 490 fm; wind, 360°, force 5; weather, clear; sea, rough; wire angle, 33°.

123.40

0	14.08	33.55	6.39	290	0	14.08	33.55	6.39	25.07	290	0.00
8	14.04	33.57	6.25	288	10	14.03	33.57	6.23	25.10	287	0.03
26	12.92	33.56	5.60	266	20	13.91	33.57	6.12	25.13	284	0.06
38	11.54	33.57	4.19	241	30	12.20	33.56	4.96	25.46	253	0.08
51	11.30	33.69	3.72	228	50	11.32	33.69	3.75	25.72	228	0.13
60	10.80	33.69	3.27	219	75	10.47	33.95	2.20	26.07	195	0.18
67	10.34	33.82	2.71	202	100	10.72	34.24	1.00	26.25	178	0.23
80	10.62	34.05	1.95	190	150	10.80	34.53	0.42	26.47	157	0.32
86	10.74	34.17	1.39	183	200	10.32	34.55	0.33	26.56	148	0.40
98	10.72	34.23	1.02	178	250	9.91	34.55	0.29	26.64	141	0.47
118	10.78	34.29	0.93	174	300	9.57	34.54	0.24	26.69	136	0.54
140	10.86	34.50	0.51	160	400	8.74	34.52	0.21	26.81	125	0.68
184	10.52	34.55	0.36	151	500	7.60	34.48	0.21	26.94	112	0.80
235	10.02	34.55	0.30	143							
329	9.40	34.53	0.21	134							
445	8.22	34.50	0.21	119							
572	6.71	34.44	0.19	103							

HORIZON; June 17, 1955; 0450 GCT; 26°58.5'N, 115°32'W; sounding, 1850 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 33°.

123.50

0	16.26	33.58	5.99	333	0	16.26	33.58	5.99	24.62	333	0.00
8	16.24	33.58	5.90	333	10	16.24	33.57	5.91	24.61	334	0.03
26	16.22	33.56	5.92	334	20	16.23	33.57	5.92	24.61	334	0.07
38	16.18	33.56	5.81	333	30	16.21	33.56	5.92	24.61	334	0.10
47	12.57	33.47	5.24	267	50	12.29	33.49	5.05	25.38	260	0.16
55	11.94	33.52	4.52	252	75	10.49	33.72	2.85	25.89	212	0.22
63	11.01	33.63	3.55	227	100	10.37	34.00	2.01	26.13	189	0.27
72	10.55	33.68	3.03	216	150	10.24	34.28	1.13	26.36	167	0.36
84	10.45	33.82	2.45	204	200	9.79	34.42	0.70	26.55	149	0.44
93	10.47	33.93	2.20	196	250	9.19	34.42	0.56	26.66	139	0.51
111	10.18	34.08	1.87	180	300	8.78	34.46	0.45	26.75	130	0.58
136	10.26	34.20	1.41	173	400	7.70	34.44	0.32	26.90	116	0.71
179	10.12	34.42	0.80	156	500	6.82	34.43	0.28	27.01	106	0.82
232	9.36	34.41	0.61	143							
327	8.56	34.46	0.39	127							
439	7.33	34.43	0.32	112							
564	6.30	34.42	0.23	99							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T^3}{cm^3/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T^3}{cm^3/g}$	dyn. m

123.60

HORIZON; June 16, 1955; 2039, 2201 GCT; 26°39.5'N, 116°08'W; sounding, 2100 fm; wind, 360°, force 4; weather, overcast; sea, rough; wire angle, 22°, 36°.

0	17.60	33.64	6.07	358	0	17.60	33.64	6.07	24.36	358	0.00
9	17.58	33.71	5.96	353	10	17.58	33.70	5.94	24.40	354	0.04
28	17.54	33.59	5.60	362	20	17.57	33.66	5.70	24.37	357	0.07
41	16.88	33.62	5.88	344	30	17.54	33.59	5.60	24.32	361	0.11
51	15.85	33.62	5.78	322	50	15.98	33.62	5.78	24.73	322	0.18
61	14.98	33.39	5.76	320	75	13.62	33.33	5.94	25.00	297	0.25
68	13.85	33.35	5.96	300	100	12.02	33.34	5.18	25.31	267	0.32
78	13.41	33.31	5.88	294	150	9.84	33.88	2.87	26.12	190	0.44
91	12.41	33.31	5.50	276	200	9.43	34.19	1.90	26.44	160	0.53
100	12.02	33.34	5.18	267	250	8.78	34.25	1.50	26.58	146	0.61
124	10.32	33.48	4.18	227	300	8.21	34.30	1.11	26.71	134	0.68
148	9.84	33.87	2.90	190	400	7.39	34.34	0.43	26.87	119	0.81
195	9.49	34.18	1.94	162	500	6.60	34.43	0.26	27.05	102	0.93
251	8.77	34.25	1.49	146	600	5.87	34.45	0.27	27.16	92	1.03
353	7.70	34.33	0.71	125	700	5.29	34.46	0.31	27.24	84	1.12
472	6.82	34.43	0.35	-	800	4.88	34.49	0.41	27.30	78	1.21
600	5.87	34.45	0.36	92	1000	4.19	34.51	0.48	27.41	68	1.37
					1200	3.66	34.54	0.68	27.48	61	
0a)	17.40	33.58	5.44u	-	1500	3.00	34.57	0.99	27.57	53	
397	7.40	34.34	0.47	120	2000	2.25	34.64	1.70	27.69	41	
443	7.09	34.39	0.30	112							
494	6.67	34.42	0.27	-							
553	6.12	34.42	0.22	97							
616	5.76	34.56r	0.26	-							
688	5.37	34.45	0.30	86							
766	5.01	34.49	0.35	79							
853	4.64	34.49	0.45	75							
954	4.30	34.56r	0.45	-							
1066	3.99	34.52	0.54	66							
1189	3.66	34.54	0.68	62							
1330	3.32	34.56	0.80	57							
1488	3.00	34.57	0.98	53							
1663	2.62	34.61	1.29	47							
1867	2.35	34.61	1.55	45							
2096	2.11	34.66	1.85	39							

127.34

HORIZON; June 15, 1955; 2020 GCT; 26°55.5'N, 114°06'W; sounding, 40 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 16°.

0	15.82	33.52	6.34	328	0	15.82	33.52	6.34	24.67	328	0.00
10	15.18	33.51	5.72	315	10	15.18	33.51	5.72	24.81	315	0.03
14	12.86	33.40	5.30	277	20	12.70	33.40	5.26	25.23	275	0.06
19	12.76	33.40	5.28	275	30	11.88	33.54	4.24	25.50	249	0.09
25	12.34	33.41	4.96	267							
28	12.00	33.50	4.43	254							
33	11.64	33.55	4.05	244							
38	11.49	33.53	3.95	243							
48	10.94	33.58	3.51	230							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

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HORIZON; June 15, 1955; 2347 GCT; 26°44.5'N, 114°29.5'W; sounding, 1700 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 11°.

127.40

3	17.04	33.58	5.54	350	0	(17.04)	(33.60)	(5.54)	(24.45)	(349)	(0.00)
13	16.98	33.54	5.46	352	10	16.99	33.54	5.47	24.42	352	0.04
32	15.58	33.57	5.79	319	20	16.90	33.54	5.46	24.44	350	0.07
46	12.96	33.51	4.91	271	30	15.90	33.56	5.70	24.69	326	0.10
61	11.34	33.73u	3.74	-	50	12.50	33.51	4.64	25.35	263	0.16
70	10.76	33.60	3.34	223	75	10.66	33.64	3.30	25.80	221	0.22
79	10.62	33.66	3.25	219	100	10.43	33.84	2.40	26.00	202	0.28
95	10.44	33.82	2.44	204	150	9.95	34.13	1.68	26.31	172	0.37
105	10.40	33.86	2.33	200	200	9.75	34.34	0.86	26.50	154	0.45
120	10.36	33.96	1.95	192	250	9.35	34.39	0.60	26.61	144	0.53
149	9.96	34.13	1.69	172	300	8.74	34.40	0.54	26.71	134	0.60
177	9.84	34.30	1.30	159	400	7.68	34.39	0.36	26.86	120	0.73
235	9.52	34.38	0.66	147	500	6.85	34.39	0.24	26.99	108	0.85
303	8.69	34.40	0.52	133	600	6.06	34.42	0.24	27.11	96	0.96
419	7.50	34.39	0.32	117	700	(5.53)	(34.47)	(0.26)	(27.22)	(86)	(1.05)
557	6.38	34.40	0.23	101							
696	5.54	34.47	0.26	86							

HORIZON; June 16, 1955; 0639 GCT; 26°23.5'N, 115°08'W; sounding, 1900 fm; wind, 310°, force 5; weather, missing; sea, rough; wire angle, 29°.

127.50

0	16.92	33.68	5.72	340	0	16.92	33.68	5.72	24.54	340	0.00
10	16.92	33.64	5.53	343	10	16.92	33.64	5.53	24.51	343	0.03
28	15.64	33.58	-	320	20	16.90	33.64	5.51	24.51	343	0.07
42	13.06	33.53	5.01	271	30	15.35	33.57	5.93	24.83	313	0.10
51	11.86	33.53	4.26	250	50	11.99	33.53	4.35	25.47	252	0.16
60	11.38	33.58	3.75	237	75	10.42	33.74	2.92	25.91	210	0.22
69	10.87	33.73	3.08	217	100	10.34	34.02	2.14	26.15	187	0.27
78	10.24	33.76	2.89	205	150	10.00	34.33	1.06	26.46	158	0.35
91	10.35	33.86	2.56	199	200	9.65	34.43	0.72	26.58	146	0.43
100	10.34	34.02	2.14	187	250	9.20	34.49	0.39	26.71	134	0.50
123	10.02	34.19	1.58	170	300	8.70	34.46	0.28	26.77	128	0.57
148	10.00	34.32	1.08	160	400	7.76	34.42	0.26	26.88	118	0.70
196	9.69	34.42	0.74	147	500	6.67	34.42	0.26	27.03	104	0.81
254	9.16	34.49	0.34	134	600	6.00	34.43	0.23	27.12	95	0.92
359	8.16	34.43	0.26	123							
480	6.88	34.42	0.26	107							
609	5.96	34.43a)	0.21	94							

a) Alternate value, 34.52‰, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

127.60

HORIZON; June 16, 1955; 1242, 1435 GCT; 26°01.5'N, 115°50.5'W; sounding, 2050 fm; wind, 010°, force 5; weather, overcast; sea, very rough; wire angle, 33°, 32°.

0	17.92	33.67	5.49	364	0	17.92	33.67	5.49	24.29	364	0.00
8	17.90	33.62	5.45	366	10	17.90	33.63	5.43	24.28	365	0.04
25	17.88	33.64	5.39	365	20	17.89	33.63	5.40	24.28	365	0.07
38	17.91	33.65	5.29	364	30	17.90	33.64	5.32	24.28	365	0.11
47	17.72	33.64	5.52	362	50	17.60	33.62	5.57	24.34	360	0.18
56	17.40	33.60	5.59	357	75	16.14	33.48	5.73	24.57	338	0.27
65	16.52	33.56	5.00	340	100	13.59	33.37	5.29	25.04	293	0.35
71	16.30	33.48	5.67	342	150	10.13	33.74	3.16	25.96	205	0.47
84	15.42	33.48	5.82	323	200	9.72	34.18	1.90	26.38	165	0.57
92	14.96	33.44	5.74	316	250	9.34	34.40	1.18	26.61	144	0.65
110	12.23	33.34	4.96	270	300	8.71	34.43	0.85	26.73	132	0.72
133	10.45	33.55	3.85	224	400	7.60	34.40	0.50	26.88	118	0.85
178	9.84	34.03	2.40	178	500	6.58	34.40	0.26	27.03	104	0.96
231	9.54	34.34	1.43	151	600	6.00	34.42	0.25	27.12	95	1.07
330	8.38	34.43	0.72	126	700	5.36	34.47	0.34	27.24	84	1.17
448	7.06	34.42	0.35	109	800	4.88	34.48	0.36	27.30	78	1.26
579	6.10	34.42	0.28	-	1000	4.11	34.52	0.55	27.42	67	1.42
					1200	3.54	34.53	0.85	27.48	61	
0a)	17.93	33.65	5.65	-	1500	2.95	34.58	1.17	27.58	52	
420	7.40	34.39	0.46	116	2000	2.15	(34.62)	1.82	(27.67)	(43)	
468	6.89	34.41	0.30	107							
521	6.32	34.39	0.26	102							
584	6.01	34.41	0.24	-							
650	5.59	34.54r	0.25	-							
725	5.26	34.47	0.36	83							
806	4.84	34.48	0.36	78							
898	4.48	34.50	0.38	73							
1000	4.11	34.52	0.55	67							
1116	3.77	34.52	0.64	64							
1242	3.46	34.53	0.86	61							
1387	3.17	34.57	0.93	54							
1550	2.82	34.58	1.34	51							
1736	2.46	34.62	1.96	45							
1949	2.21	34.62	1.78	43							
2171	2.01	34.60u	2.13	-							

130.30

HORIZON; June 15, 1955; 1506 GCT; 26°28.5'N, 113°28'W; sounding, 44 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	13.53	33.65	6.05	272	0	13.53	33.65	6.05	25.26	272	0.00
10	13.38	33.69	5.69	266	10	13.38	33.69	5.69	25.32	266	0.03
15	11.52	33.71	3.73	230	20	10.80	33.77	3.34	25.87	214	0.05
20	10.80	33.77	3.34	214	30	10.72	33.78	2.91	25.90	211	0.07
25	10.72	33.77	3.06	212	50	10.81	34.04	1.71	26.08	194	0.11
30	10.72	33.78	2.91	211	75	(11.09)	(34.23)	(0.58)	(26.18)	(185)	(0.16)
36	10.74	33.87	2.38	205							
45	10.72	33.90	2.15	202							
55	10.96	34.13	1.30	189							
70	11.09	34.22	0.58	185							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; June 15, 1955; 1239 GCT; 26°21.5'N, 113°46.5'W; sounding, 55 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 14°.

130.35

0	16.14	33.55	5.73	332	0	16.14	33.55	5.73	24.63	332	0.00
10	16.12	33.50	5.72	336	10	16.12	33.50	5.72	24.59	336	0.03
14	16.09	33.55	5.72	332	20	15.92	33.50	5.75	24.64	331	0.07
19	15.92	33.50	5.75	332	30	14.98	33.48	5.85	24.83	313	0.10
24	15.67	33.53	5.66	324	50	12.30	33.52	4.48	25.41	258	0.16
28	15.10	33.49	5.86	315	75	10.69	33.83	2.75	25.94	207	0.21
33	14.08	33.46	5.62	297							
42	12.74	33.49	5.03	268							
51	12.22	33.53	4.30	256							
61	10.88	33.65	2.99	224							
74	10.70	33.82	2.80	208							
91	10.68	33.92	2.36	200							

HORIZON; June 15, 1955; 0932 GCT; 26°11'N, 114°06'W; sounding, 850 fm; wind, 300°, force 4; weather, missing; sea, rough; wire angle, 35°.

130.40

0	17.29	33.57	5.59	357	0	17.29	33.57	5.59	24.37	357	0.00
9	17.28	33.58	5.35	356	10	17.26	33.58	5.37	24.38	356	0.04
27	17.25	33.60	5.52	353	20	17.25	33.59	5.48	24.40	354	0.07
49	16.18	33.58	5.54	330	30	17.23	33.60	5.52	24.41	353	0.11
64	13.90	33.51	5.35	290	50	16.00	33.58	5.52	24.67	328	0.17
71	12.80	33.42	4.90	275	75	12.16	33.44	4.54	25.38	261	0.25
84	11.66	33.49	4.25	249	100	11.37	33.91	2.88	25.88	213	0.31
104	11.33	33.95	1.52	209	150	11.13	34.44	0.95	26.33	170	0.40
133	11.16	34.29	1.02	181	200	11.11	34.61	0.40	26.48	156	0.49
155	11.12	34.46	0.91	168	250	10.48	34.66	0.30	26.63	142	0.56
205	11.10	34.63	0.30	155	300	9.70	34.63	0.31	26.73	132	0.64
277	10.05	34.65	0.31	136	400	8.41	34.51	0.37	26.84	122	0.77
374	8.71	34.52	0.38	125	500	7.41	34.49	0.25	26.98	109	0.88
508	7.34	34.49	0.22	107	600	6.47	34.49	0.24	27.11	96	1.00
694	5.65	34.49	0.30	86	700	5.63	34.49	0.31	27.22	86	1.09
928	4.44	34.52	0.50	71	800	5.09	34.50	0.38	27.29	79	1.18
1253	3.48	34.58	0.74	57	1000	4.20	34.53	0.56	27.42	67	1.34

HORIZON; June 15, 1955; 0304 GCT; 25°41'N, 114°47'W; sounding, 1975 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 24°.

130.50

10	17.11	33.62	5.59	348	0	(17.12)	(33.62)	(5.60)	(24.45)	(349)	(0.00)
23	15.40	33.63	6.37	311	10	17.11	33.62	5.59	24.46	348	0.03
51	11.97	33.51	5.00	253	20	15.86	33.63	6.24	24.76	319	0.07
60	11.12	33.52	4.24	248	30	14.80	33.62	6.26	24.98	299	0.10
70	10.82	33.57	3.86	228	50	11.97	33.51	5.01	25.46	253	0.15
84	10.53	33.76	3.11	210	75	10.70	33.64	3.60	25.80	221	0.21
102	10.38	33.88	2.65	198	100	10.38	33.87	2.69	26.03	199	0.27
126	10.27	34.05	2.23	184	150	10.27	34.24	1.58	26.33	170	0.36
152	10.27	34.25	1.54	169	200	9.83	34.37	0.94	26.51	153	0.44
201	9.81	34.37	0.92	153	250	9.55	34.51	0.61	26.67	138	0.52
223	9.78	34.47	0.82	145	300	8.91	34.50	0.44	26.75	130	0.59
268	9.36	34.52	0.53	134	400	7.79	34.44	0.32	26.88	118	0.71
362	8.18	34.43	0.37	123	500	6.92	34.46	0.24	27.03	104	0.83
486	7.04	34.47	0.24	105	600	6.05	34.44	0.24	27.13	94	0.93
657	5.60	34.44	0.29	89	700	5.30	34.45	0.30	27.23	85	1.03
873	4.60	34.50	0.43	74	800	4.84	34.48	0.39	27.30	78	1.12
1172	3.71	34.55	0.84	61	1000	4.24	34.52	0.56	27.41	68	1.28

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

130.60

HORIZON; June 14, 1955; 2205, 1958 GCT; 25°29'N, 115°24.5'W; sounding, 1800 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 24°, 28°.

0	17.82	33.68	6.08	362	0	17.82	33.68	6.08	24.31	362	0.00
9	17.76	33.69	5.15	358	10	17.75	33.68	5.15	24.35	359	0.04
27	17.66	33.66	5.18	359	20	17.70	33.67	5.16	24.35	359	0.07
41	17.62	33.65	5.25	358	30	17.66	33.65	5.22	24.35	359	0.11
50	16.50	33.56	5.18	340	50	16.50	33.56	5.18	24.54	340	0.18
59	16.09	33.51	5.51	334	75	15.15	33.45	5.37	24.76	319	0.26
67	15.74	33.50	5.45	328	100	12.67	33.39	4.38	25.24	274	0.34
77	15.06	33.45	5.35	317	150	10.51	33.91	2.50	26.04	198	0.45
90	14.22	33.46	5.09	299	200	10.06	34.23	1.52	26.36	167	0.55
98	12.96	33.39	4.50	280	250	9.16	34.27	1.45	26.54	150	0.63
120	11.16	33.49	3.58	240	300	8.66	34.32	1.10	26.66	139	0.70
147	10.55	33.83	2.53	205	400	7.79	34.42	0.45	26.87	119	0.84
196	10.13	34.22	1.55	179	500	6.78	34.43	0.32	27.03	104	0.96
251	9.14	34.27	1.45	150	600	6.05	34.42	0.30	27.11	96	1.06
356	8.20	34.38	0.58	127	700	5.46	34.46	0.34	27.22	86	1.16
474	7.07	34.43	-	109	800	4.89	34.52	0.40	27.32	76	1.25
596	6.07	34.42	0.24	-	1000	4.23	34.56	0.63	27.44	65	1.40

0a)	17.69	33.68	5.11u	-
433	7.50	34.43	1.44r	114
537	6.46	34.42	0.30	101
601	6.00	34.42	0.36	-
669	5.66	34.44	0.42	90
732	5.24	34.48	0.60	82
832	4.81	34.52	0.39	75
1035	4.16	34.57	0.64	64

133.25

HORIZON; June 13, 1955; 2053 GCT; 26°04.5'N, 112°48'W; sounding, 40 fm; wind, 230°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.

0	16.77	33.76	6.52	331	0	16.77	33.76	6.52	24.64	331	0.00
10	14.22	33.78	5.36	276	10	14.22	33.78	5.36	25.22	276	0.03
15	13.50	33.80	4.45	260	20	13.03	33.78	4.17	25.47	252	0.06
20	13.03	33.78	4.17	252	30	11.43	33.86	2.35	25.83	218	0.08
25	11.66	33.78	4.39	227	50	11.62	34.25	0.54	26.10	192	0.12
30	11.43	33.86	2.35	218							
35	11.63	34.02	1.40	209							
40	11.65	34.08	0.99	205							
50	11.62	34.25	0.54	192							
60	11.67	34.40	0.35	182							

133.30

HORIZON; June 13, 1955; 2332 GCT; 25°54'N, 113°03.5'W; sounding, 80 fm; wind, 270°, force 4; weather, overcast; sea, slight; wire angle, 14°.

0	15.95	33.66	5.91	320	0	15.95	33.66	5.91	24.76	320	0.00
10	14.30	33.64	5.88	288	10	14.30	33.64	5.88	25.09	288	0.03
14	14.08	33.66	5.56	282	20	13.56	33.76	4.64	25.33	265	0.06
19	13.60	33.75	4.72	266	30	13.44	33.95	3.58	25.51	248	0.08
24	13.48	33.88	3.93	254	50	11.60	33.99	1.88	25.91	210	0.13
29	13.45	33.95	3.61	248	75	11.67	34.38	0.74	26.18	184	0.18
34	13.38	33.96	3.50	246	100	11.40	34.46	0.56	26.30	173	0.22
43	11.69	33.89	2.19	220							
53	11.59	34.02	1.63	208							
63	11.57	34.13	1.20	200							
77	11.67	34.40	0.69	182							
97	11.42	34.45	0.58	174							
121	11.33	34.49	0.46	170							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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HORIZON; June 14, 1955; 0453 GCT; 25°35'N, 113°45.5'W; sounding, 1350 fm; wind, 290°, force 4; weather, missing; sea, moderate; wire angle, 19°.

133.40

0	17.76	33.69	4.82	359	0	17.76	33.69	4.82	24.35	359	0.00
9	15.56	33.55	4.50	320	10	15.40	33.55	4.55	24.79	317	0.03
28	13.28	33.58	5.68	272	20	14.07	33.56	5.29	25.09	288	0.06
42	12.36	33.64	3.83	250	30	13.20	33.58	5.68	25.28	270	0.09
56	11.55	33.82	2.36	223	50	11.82	33.73	2.82	25.66	234	0.14
66	11.36	33.96	1.96	209	75	11.64	34.09	1.62	25.98	204	0.20
75	11.64	34.09	1.62	204	100	11.45	34.29	1.40	26.16	186	0.25
89	11.54	34.19	1.43	195	150	10.82	34.50	0.97	26.44	160	0.33
98	11.46	34.28	1.43	187	200	10.29	34.54	0.65	26.56	148	0.41
111	11.44	34.38	0.94	180	250	9.75	34.54	0.40	26.65	140	0.48
139	10.93	34.46	0.97	165	300	9.27	34.53	0.40	26.72	133	0.56
166	10.74	34.52	0.98	157	400	8.29	34.53	0.39	26.88	118	0.69
221	10.03	34.54	0.44	144	500	7.22	34.45	0.23	26.98	109	0.80
286	9.41	34.53	0.40	135	600	6.42	34.46	0.38	27.09	98	0.91
398	8.32	34.53	0.39	118							
531	6.97	34.44	0.21	106							
666	5.96	34.51	0.69	88							

HORIZON; June 14, 1955; 0959, 1200 GCT; 25°15.5'N, 114°20'W; sounding, 2000 fm; wind, 280°, force 4; weather, cloudy; sea, rough; wire angle, 22°, 21°.

133.50

0	17.46	33.62	5.62	357	0	17.46	33.62	5.62	24.37	357	0.00
9	17.44	33.64	5.52	355	10	17.43	33.64	5.50	24.40	354	0.04
28	17.28	33.60	5.40	354	20	17.38	33.62	5.41	24.40	354	0.07
42	16.44	33.53	5.82	342	30	17.25	33.60	5.42	24.40	354	0.11
51	16.16	33.48	5.98	338	50	16.17	33.48	5.96	24.57	338	0.18
61	16.14	33.48	5.95	337	75	14.78	33.45	5.94	24.84	312	0.26
69	15.91	33.49	6.00	332	100	13.00	33.39	5.66	25.18	280	0.33
79	14.08	33.42	5.88	300	150	10.71	34.07	2.15	26.12	190	0.45
93	13.52	33.37	5.80	292	200	10.48	34.44	1.00	26.45	159	0.54
100	13.00	33.39	5.66	280	250	10.11	34.53	0.60	26.58	146	0.62
124	11.62	33.77	3.30	228	300	9.39	34.53	0.34	26.70	135	0.68
150	10.71	34.07	2.15	190	400	8.17	34.49	0.20	26.87	119	0.82
196	10.52	34.42	1.11	160	500	7.22	34.47	0.17	26.99	108	0.94
254	10.05	34.53	0.58	145	600	6.51	34.46	0.17	27.08	99	1.05
355	8.64	34.51	0.24	124	700	5.61	34.46	0.17	27.20	88	1.15
475	7.34	34.56r	0.17	-	800	5.02	34.45	0.28	27.26	82	1.24
601	6.36	34.45	0.24	-	1000	4.28	34.51	0.45	27.39	70	1.41
					1200	3.70	34.53	0.61	27.47	62	
0a)	17.38	33.60	5.49	-	1500	2.95	34.59	1.02	27.58	52	
460	7.70	34.47	0.15	-	2000	2.12	34.65	1.78	27.70	40	
513	7.11	34.47	0.17	106							
570	6.74	34.46	0.18	102							
637	6.26	34.46	0.16	96							
709	5.56	34.53r	0.19	-							
792	5.08b)	34.45	0.28	83							
881	4.70	34.47	0.28	77							
977	4.37	34.51	0.41	70							
1091	4.02	34.52	0.52	67							
1219	3.61	34.54	0.63	61							
1357	3.29	34.56	0.77	57							
1514	2.94	34.59	1.04	51							
1692	2.58	34.63	1.29	45							
1889	2.22	34.65	1.64	40							
2107	2.02	34.65	1.84	39							
2353	1.84	34.66	2.12	37							

- a) Overlapping casts; reconciliation of property curves when necessary.
b) Mean value of 5.04 and 5.11°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

137.23

HORIZON; June 13, 1955; 1539 GCT; 25°21.5'N, 112°18.5'W; sounding, 42 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 04°.

0	17.88	33.91	5.84	345	0	17.88	33.91	5.84	24.49	345	0.00
10	17.28	33.90	5.96	332	10	17.28	33.90	5.96	24.63	332	0.03
15	14.84	33.93	3.92	277	20	13.57	33.94	2.44	25.49	251	0.06
20	13.57	33.94	2.44	251	30	12.45	34.13	1.67	25.85	216	0.09
25	12.83	34.07	1.57	228	50	12.08	34.27	0.87	26.03	199	0.13
30	12.45	34.13	1.67	216							
35	11.95	34.08	1.61	211							
40	12.10	34.20	1.20	204							
50	12.08	34.27	0.87	199							
60	11.95	34.33	0.62	192							

137.30

HORIZON; June 13, 1955; 1139 GCT; 25°09.5'N, 112°44'W; sounding, 230 fm; wind, 270°, force 3; weather, drizzle; sea, slight; wire angle, 23°.

0	17.12	33.72	5.51	342	0	17.12	33.72	5.51	24.52	342	0.00
9	16.34	33.68	4.33u	328	10	16.32	33.68		24.68	327	0.03
14	16.10	33.69	6.01	322	20	16.01	33.72	6.16	24.79	317	0.07
18	16.02	33.72	6.16	317	30	15.30	33.69	4.90	24.92	304	0.10
23	15.94	33.73	6.00	315	50	12.42	33.68	3.45	25.50	249	0.15
28	15.68	33.70	4.72	312	75	11.86	34.14	1.50	25.98	204	0.21
36	13.97	33.66	5.90	299	100	11.54	34.40	1.24	26.24	179	0.26
45	12.66	33.64	3.90	276	150	11.24	34.65	0.45	26.48	156	0.34
59	12.17	33.87	2.91	230	200	10.76	34.64	0.23	26.56	148	0.42
71	11.93	34.09	1.81	209	250	10.50	34.62	0.20	26.58	146	0.49
88	11.66	34.28	1.20	191	300	10.32	34.61	0.20	26.61	144	0.57
110	11.48	34.43	1.26	177							
145	11.28	34.65	0.53	157							
180	10.90	34.65	0.26	150							
224	10.62	-	0.21	-							
293	10.36	34.61	0.20	144							
368	10.15	34.62	0.15	140							

137.40

HORIZON; June 13, 1955; 0523, 0606 GCT; 24°52.5'N, 113°24'W; sounding, 2000 fm; wind, 310°, force 3; weather, missing; sea, moderate; wire angle, 18°, 20°.

0	17.91	33.58	5.38	370	0	17.91	33.58	5.38	24.23	370	0.00
9	17.77	33.58	5.24	366	10	17.75	33.58	5.24	24.27	366	0.04
28	16.60	33.60	5.60	339	20	17.43	33.59	5.31	24.36	358	0.07
42	13.83	33.57	4.91	284	30	16.40	33.60	5.60	24.60	335	0.11
53	12.81	33.66	4.01	257	50	13.11	33.64	4.20	25.34	264	0.17
62	11.34	33.63	3.57	233	75	11.68	33.99	2.15	25.89	212	0.23
72	11.45	33.86	2.54	218	100	11.57	34.34	1.22	26.18	184	0.28
81	11.75	34.15	1.77	202	150	11.20	34.52	0.78	26.40	164	0.37
96	11.64	34.33	1.31	187	200	10.88	34.60	0.28	26.51	153	0.45
105	11.46	34.35	1.18	182	250	9.39	34.48	0.67	26.67	138	0.52
129	11.14	34.38	1.11	174	300	8.86	34.50	0.50	26.78	128	0.59
157	11.22	34.55	0.76	163	400	8.08	34.52	0.16	26.91	115	0.72
210	10.67	34.60	0.20	150	500	7.13	34.50	0.13	27.03	104	0.83
137p	10.96	34.38	0.97	171							
244p	9.52	34.48	0.67	140							
368p	8.38	34.52	0.21	119							
501p	7.13	34.50	0.13	104							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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HORIZON; June 12, 1955; 2141, 2259 GCT; 24°37'N, 114°02.5'W; sounding, 2000 fm; wind, 300°, force 3;
 weather, cloudy; sea, moderate; wire angle, 15°, 24°.

137.50

0	17.14	33.54	4.88	355	0	17.14	33.54	4.88	24.39	355	0.00
10	16.38	33.50	4.74	342	10	16.38	33.50	4.74	24.52	342	0.03
29	16.12	33.50	4.88	335	20	16.22	33.50	4.79	24.57	338	0.07
44	15.64	33.51	4.98	325	30	16.10	33.50	4.88	24.60	335	0.10
53	14.58	33.42	4.99	309	50	15.00	33.46	4.99	24.81	315	0.17
63	14.04	33.43	5.03	298	75	13.00	33.44	4.36	25.21	277	0.24
72	13.30	33.47	4.50	281	100	11.54	33.57	3.40	25.58	241	0.31
82	12.50	33.40	4.31	271	150	11.30	34.33	0.80	26.21	182	0.41
97	11.53	33.50	3.66	246	200	10.93	34.51	0.35	26.43	161	0.50
105	11.58	33.77	2.94	226	250	9.82	34.45	0.33	26.58	147	0.58
130	11.30	34.13	1.17	196	300	9.14	34.44	0.33	26.68	137	0.65
157	11.32	34.37	0.71	178	400	8.23	34.48	0.07	26.85	120	0.78
210	10.79	34.52	0.29	158	500	7.16	34.44	0.11	26.98	108	0.90
270	9.42	34.43	0.37	142	600	6.25	34.44	0.10	27.10	97	1.01
379	8.42	34.51	0.07	-	700	5.53	34.46	0.17	27.21	87	1.11
503	7.12	34.44	0.43u	-	800	5.14	34.46	0.22	27.26	82	1.20
580	6.45	34.46	0.09	-	1000	4.23	34.51	0.36	27.40	69	1.37
					1200	3.63	34.53	0.65	27.47	62	
0a)	16.95	33.49	5.47	-	1500	3.04	34.57	0.88	27.57	53	
443	7.84	34.44	0.15	-	2000	2.20	34.64	1.88	27.69	41	
492	7.24	34.45	0.10	-							
547	6.75	34.45	0.16	103							
610	6.17	34.43	0.10	-							
679	5.62	34.46	0.15	88							
757	5.38	34.45	0.23	86							
839	4.92	34.48	0.21	79							
933	4.50	34.49	0.26	75							
1040	4.08	34.52	0.45	67							
1161	3.72	34.52	0.58	64							
1292	3.42	34.55	0.74	59							
1442	3.15	34.56	0.82	55							
1611	2.74	34.52u	1.15	-							
1805	2.41	34.61	1.55	45							
2019	2.16	34.64	1.92	41							

a) Overlapping casts; reconciliation of property curves when necessary.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
63.52-C	VI-24	1225	37°18.5'	122°37.0'	40	330°	5	clear	rough	12.06	33.45
63.55-C	24	0940	37°05.5'	122°48.5'	150	340°	5	clear	rough	11.78	33.69
63.65-C	24	0400	36°52.5'	123°26.0'	1860	330°	7	partly cloudy	very rough	14.02	33.35
70.52-C	23	0100	36°08.0'	121°50.0'	400	330°	7	clear	rough	10.36	33.77
77.70-C	19	1822	34°21.0'	122°12.0'	2000+	340°	4	cloudy	moderate	14.30	33.35
83.51-C	16	0440	33°51.5'	120°08.5'	200	320°	7	missing	very rough	15.15	33.56
83.65-C	15	1850	33°23.0'	121°08.0'	1950	340°	6	cloudy	rough	14.53	33.40
83.75-C	15	1100	33°03.5'	121°47.5'	2000+	350°	5	missing	moderate	14.10	33.42
83.85-C	15	0350	32°45.0'	122°27.0'	2300	340°	3	cloudy	moderate	14.24	33.44
87.45-C	11	1800	33°30.5'	119°19.5'	930	270°	1	cloudy	slight	14.36	33.69
87.55-C	11	2350	33°10.0'	120°00.5'	700	250°	4	cloudy	moderate	14.58	33.55
87.65-C	13	1840	32°50.0'	120°42.0'	2000+	300°	3	cloudy	moderate	14.23	33.34
87.75-C	14	0045	32°30.0'	121°23.5'	2400	300°	3	cloudy	moderate	14.28	33.42
87.85-C	14	0840	32°10.0'	122°04.0'	-	320°	4	cloudy	moderate	15.24	33.34
90.50-P	17	2310	32°46.0'	119°17.0'	235	280°	1	cloudy	moderate	14.24	33.94
90.65-P	18	1030	32°14.0'	120°11.0'	1850	310°	5	missing	very rough	14.10	33.48
90.75-P	18	1930	31°55.5'	120°59.0'	2000+	330°	6	clear	very rough	14.86	33.37
93.35-P	20	1110	32°31.0'	117°59.0'	920	300°	3	missing	rough	16.74	33.62
93.45-P	20	0425	32°16.5'	118°35.0'	400	300°	5	missing	rough	16.56	33.62

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
93.55-P	VI-19	2220	31°59.0'	119°09.0'	930	320°	5	cloudy	very rough	14.90	33.47
93.65-P	19	1525	31°40.0'	119°52.0'	2050	320°	5	overcast	very rough	15.64	33.48
93.70-P	19	1155	31°30.0'	120°13.0'	2000+	320°	6	missing	very rough	14.61	33.46
93.75-P	19	0830	31°19.0'	120°34.0'	2000+	310°	6	missing	very rough	14.42	33.35
93.80-P	19	0510	31°09.5'	120°54.5'	2000+	330°	6	missing	very rough	15.48	33.38
97.35-P	22	0650	32°07.5'	117°26.0'	600	290°	5	cloudy	rough	17.28	33.57
97.45-P	22	1445	31°46.0'	118°09.5'	850	320°	5	partly cloudy	rough	16.12a)	33.61
97.55-P	22	2250	31°25.0'	118°50.0'	370	320°	7	partly cloudy	high	15.54	33.64
100.35-P	23	1745	31°28.0'	117°05.0'	650	320°	5	partly cloudy	very rough	17.32	34.09
100.40-P	23	1430	31°21.5'	117°27.0'	1050	320°	6	clear	very rough	16.72	33.57
100.45-P	23	1045	31°08.5'	117°53.5'	850	320°	6	missing	very rough	15.78	33.60
100.50-P	23	0730	30°57.5'	118°10.0'	770	320°	5	missing	very rough	15.36	33.55
100.55-P	23	0420	30°46.5'	118°26.5'	1400	320°	6	missing	very rough	15.94	33.49
103.35-H	28	1930	30°55.0'	116°42.0'	900	330°	3	overcast	rough	15.48	33.49
103.45-H	28	1430	30°37.0'	117°19.5'	1000	330°	4	overcast	rough	15.80	33.55
103.55-H	28	0845	30°16.0'	118°05.0'	1250	340°	4	overcast	rough	16.46	33.52
103.65-H	28	0242	29°57.5'	118°46.0'	1900	330°	4	overcast	rough	16.37	33.52

a) Alternate value, 16.23°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
103.75-H	VI-27	2115	29°37.5'	119°25.0'	1600	340°	4	overcast	rough	16.66 33.52
103.85-H	27	1640	29°22.0'	119°57.5'	2100	360°	4	overcast	rough	16.47 33.43
107.45-H	26	0310	29°59.5'	117°03.5'	700	310°	4	overcast	rough	16.74 33.51
107.55-H	26	0845	29°42.0'	117°44.0'	1900	330°	5	clear	very rough	16.56 33.48
107.65-H	26	1432	29°22.0'	118°22.5'	1600	340°	4	overcast	very rough	- 33.44
107.75-H	26	2000	29°02.5'	119°02.0'	1900	320°	3	cloudy	rough	17.20 33.64
107.85-H	27	0135	28°42.5'	119°43.5'	2075	330°	4	cloudy	rough	17.78 33.67
110.45-H	25	0435	29°25.5'	116°38.5'	800	320°	4	clear	very rough	16.43 33.52
110.55-H	24	2301	29°06.5'	117°18.5'	2000	330°	5	cloudy	very rough	16.62 33.53
110.65-H	23	1640	28°46.0'	117°57.5'	1950	340°	6	clear	high	16.92 33.55
110.75-H	23	1009	28°26.0'	118°37.0'	2175	320°	6	clear	very rough	17.12 33.57
110.80-H	23	0720	28°16.0'	118°57.5'	2300	330°	6	clear	high	17.08 33.53
110.85-H	23	0430	28°04.0'	119°25.0'	2150	330°	5	clear	high	17.48 33.67
113.45-H	21	1945	28°53.0'	116°19.5'	1225	330°	3	overcast	very rough	17.11 33.58
113.55-H	22	0130	28°32.0'	116°57.0'	1900	340°	4	cloudy	very rough	16.74 33.49
113.65-H	22	0700	28°12.0'	117°35.0'	2150	330°	5	overcast	high	16.72 33.49
113.75-H	22	1252	27°48.5'	118°22.0'	2100	310°	5	clear	very rough	17.14 33.57
117.35-H	21	0120	28°38.0'	115°16.0'	103	340°	5	overcast	very rough	15.94 33.48
117.45-H	20	1915	28°13.0'	115°53.0'	1800	330°	4	overcast	very rough	16.92 33.53

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
117.55-H	VI-20	1200	27°55.0'	116°37.0'	1950	320°	4	overcast	very rough	17.58 33.54
117.65-H	20	0604	27°38.0'	117°13.0'	1800	320°	5	clear	very rough	17.72 33.56
117.75-H	20	0015	27°14.5'	117°56.0'	2400	350°	4	cloudy	rough	17.53 33.53
120.27-H	18	0515	28°19.0'	114°23.0'	45	300°	4	overcast	moderate	15.50 33.51
120.40-H	18	1205	27°55.5'	115°17.5'	40	310°	3	overcast	rough	15.46 33.68
120.55-H	18	2115	27°23.0'	116°10.0'	2150	330°	4	overcast	rough	17.51 33.54
123.45-H	17	0759	27°08.0'	115°10.0'	2300	360°	6	missing	very rough	16.67 33.52
123.55-H	17	0138	26°49.0'	115°50.5'	2095	320°	4	partly cloudy	rough	15.25 33.44
127.45-H	16	0310	26°38.0'	114°48.5'	2050	320°	5	clear	very rough	16.97 33.62
127.55-H	16	0950	26°13.0'	115°27.5'	2000	320°	4	clear	rough	17.27 33.53

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
63.52-C	VII-15	1200	37°16.5'	122°37.0'	50	340°	3	missing	slight	10.23 -
63.55-C	15	1020	37°12.5'	122°50.0'	155	340°	4	missing	moderate	12.73 -
63.65-C	15	0505	36°55.0'	123°35.0'	1950	360°	3	missing	moderate	13.42 -
67.50-C	14	1715	36°49.5'	122°04.5'	58	350°	3	fog	slight	9.76 33.85
67.55-C	14	2000	36°39.0'	122°26.0'	1100	330°	3	fog	slight	12.22 33.66
67.65-C	15	0020	36°19.0'	123°09.0'	1800	340°	4	missing	moderate	13.88 -
70.52-C	14	1230	36°10.5'	121°51.0'	340	340°	4	fog	slight	10.63 33.71
70.55-C	14	1045	36°07.0'	122°05.5'	700	350°	3	fog	slight	14.10 33.42
70.60-C	14	0810	35°56.5'	122°26.5'	1400	320°	4	fog	moderate	11.56 33.51
70.70-C	14	0330	35°38.0'	123°03.0'	2000+	320°	3	overcast	moderate	14.18 33.44
70.80-C	13	2310	35°17.5'	123°46.0'	2000	350°	3	overcast	very rough	14.96 33.26
70.90-C	13	1815	34°56.0'	124°29.0'	2000+	360°	4	overcast	rough	14.84 33.29
73.50-C	12	1928	35°37.0'	121°17.5'	50	330°	2	fog	slight	9.82 33.96
73.60-C	13	0000	35°18.0'	121°58.0'	1300	320°	3	overcast	rough	11.38 33.51
73.70-C	13	0420	34°59.0'	122°41.0'	2000+	330°	4	overcast	rough	14.09 33.40
73.80-C	13	0850	34°40.5'	123°21.5'	2000	350°	4	drizzle	rough	14.33 33.30
73.90-C	13	1330	34°21.5'	124°03.0'	2000+	320°	3	drizzle	rough	14.40 33.33
77.50-C	12	1525	35°04.0'	120°52.5'	83	-	1	drizzle	slight	10.70 33.93
77.55-C	12	1235	34°53.5'	121°11.5'	320	040°	3	drizzle	moderate	12.17 33.76

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
77. 65-C	VII-12	0745	34°35.0'	121°51.5'	2000+	330°	4	missing	rough	12.28	33.66
77. 70-C	12	0540	34°25.0'	122°14.0'	2000+	360°	5	drizzle	very rough	13.12	33.58
77. 80-C	12	0040	34°07.5'	122°58.5'	2000+	360°	4	overcast	rough	14.04	33.48
77. 90-C	11	1950	33°50.0'	123°42.0'	2000+	340°	4	overcast	very rough	14.84	33.28
80. 51-C	10	1945	34°26.0'	120°33.0'	80	340°	6	partly cloudy	moderate	11.16	33.69
80. 55-C	10	2200	34°19.5'	120°47.5'	430	310°	4	cloudy	moderate	13.74	33.68
80. 60-C	11	0020	34°09.0'	121°09.0'	1200	340°	5	overcast	moderate	12.38	33.49
80. 70-C	11	0500	33°50.5'	121°51.0'	2000+	340°	5	missing	rough	14.47	33.44
80. 80-C	11	1010	33°31.5'	122°32.0'	2000+	360°	4	missing	moderate	14.87	33.30
80. 90-C	11	1450	33°12.5'	123°14.0'	2000+	360°	5	overcast	very rough	14.84	33.35
83. 40-C	10	1345	34°13.5'	119°22.0'	12	280°	2	partly cloudy	slight	17.04	33.60
83. 43-C	10	1200	34°07.5'	119°34.0'	140	270°	2	partly cloudy	smooth	15.68	33.58
83. 51-C	10	0630	33°51.0'	120°08.0'	100	320°	7	partly cloudy	moderate	10.78	33.71
83. 55-C	10	0400	33°44.5'	120°23.0'	600	320°	5	fog	rough	12.10	33.75
83. 60-C	10	0100	33°34.5'	120°44.5'	750	300°	4	fog	moderate	11.46	33.70
83. 65-C	9	2215	33°23.0'	121°01.5'	1900	310°	5	overcast	moderate	12.56	33.58
83. 70-C	9	1925	33°09.0'	121°29.0'	2000+	320°	5	overcast	rough	13.36	33.37
87. 35-C	8	0830	33°50.0'	118°38.0'	295	calm		partly cloudy	smooth	17.94	33.59
87. 40-C	8	1130	33°42.5'	119°01.0'	490	calm		partly cloudy	smooth	16.10	33.59

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
87.45-C	VII-8	1435	33°30.0'	119°20.0'	900	120°	1	partly cloudy	moderate	16.68 33.63
87.50-C	8	1705	33°20.0'	119°40.0'	40	280°	3	cloudy	moderate	11.42 33.88
87.55-C	8	2000	33°10.5'	120°00.0'	640	330°	4	clear	rough	13.06 33.75
87.60-C	8	2230	33°01.0'	120°21.5'	420	330°	5	clear	rough	12.82 33.71
87.65-C	9	0100	32°50.5'	120°41.0'	2000+	330°	7	clear	very rough	13.38 33.66
87.70-C	9	0400	32°40.5'	121°01.0'	2000+	320°	7	clear	very rough	14.64 33.49
90.28-P	8	0815	33°28.5'	117°45.5'	100	140°	3	cloudy	smooth	17.46 33.58
90.30-P	8	1000	33°24.5'	117°55.0'	340	320°	2	cloudy	smooth	17.38 33.57
90.37-P	8	1400	33°10.0'	118°23.0'	630	140°	4	cloudy	rough	17.10 33.58
90.45-P	8	1908	32°57.5'	118°54.0'	950	270°	3	partly cloudy	rough	14.32 33.81
90.50-P	8	2245	32°46.5'	119°19.5'	325	300°	4	clear	rough	13.06 33.69
90.55-P	9	0230	32°34.5'	119°37.0'	620	300°	6	clear	rough	13.66 33.61
90.60-P	9	0550	32°21.5'	119°57.0'	450	300°	6	clear	rough	14.08 33.50
90.65-P	9	1000	32°12.5'	120°17.0'	-	320°	7	clear	very rough	13.53 33.55
90.70-P	9	1330	32°02.0'	120°36.0'	-	320°	7	clear	high	15.35 33.42
90.75-P	9	1645	31°54.0'	120°57.0'	-	320°	6	clear	very rough	15.45 33.42
90.80-P	9	1950	31°50.5'	121°08.0'	-	320°	6	cloudy	very rough	15.08 33.43
90.85-P	9	2345	31°39.0'	121°27.0'	-	320°	5	cloudy	very rough	15.58 33.40
90.90-P	10	0325	31°27.5'	121°53.5'	-	320°	5	cloudy	rough	15.75 33.40

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
93. 27-P	VII-12	0215	32°55.5'	117°19.0'	-	250°	3	overcast	moderate	19.74	33.64
93. 30-P	12	0020	32°50.5'	117°30.0'	-	250°	4	overcast	moderate	18.24	33.62
93. 35-P	11	2121	32°41.5'	117°49.5'	-	250°	4	overcast	moderate	17.19	33.59
93. 40-P	11	1830	32°31.5'	118°08.5'	-	280°	4	overcast	rough	16.74	33.68
93. 45-P	11	1520	32°22.0'	118°30.0'	-	320°	4	overcast	rough	16.10	33.75
93. 50-P	11	1230	32°12.0'	118°51.5'	-	320°	5	overcast	rough	15.50	33.66
93. 55-P	11	0846	32°02.0'	119°12.5'	-	320°	5	overcast	rough	14.01	33.68
93. 60-P	11	0530	31°52.0'	119°33.5'	-	300°	7	overcast	very rough	14.38	33.48
93. 65-P	11	0215	31°42.5'	119°54.0'	2100	320°	5	overcast	very rough	15.34	33.50
93. 70-P	10	2310	31°32.5'	120°16.0'	2000+	310°	5	overcast	rough	15.48	33.51
93. 75-P	10	1845	31°21.0'	120°38.0'	-	320°	6	overcast	rough	15.56	33.50
93. 80-P	10	1515	31°10.0'	120°58.0'	2200+	320°	5	cloudy	very rough	15.20	33.47
93. 85-P	10	1210	31°00.5'	121°18.0'	-	320°	5	cloudy	very rough	15.78	33.41
93. 90-P	10	0845	30°50.0'	121°35.0'	-	320°	5	cloudy	very rough	16.04	33.42
97. 30-P	13	0100	32°15.0'	117°09.5'	42	270°	3	overcast	moderate	13.68	33.49
97. 32-P	13	0245	32°11.5'	117°16.5'	717	270°	3	overcast	moderate	17.20	33.57
97. 35-P	13	0530	32°06.0'	117°32.0'	900	270°	3	overcast	moderate	17.47	33.59
97. 40-P	13	0900	31°57.5'	117°54.0'	-	330°	4	overcast	moderate	16.00	33.69
97. 45-P	13	1230	31°49.0'	118°16.0'	960	320°	3	overcast	slight	16.20	33.71

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
97.50-P	VII-13	1600	31°40.0'	118°38.0'	1250+	290°	3	overcast	moderate	15.42 33.71
97.55-P	13	1930	31°30.0'	119°00.0'	-	290°	3	overcast	moderate	14.80 33.54
97.60-P	13	2230	31°21.5'	119°18.5'	1500	310°	3	cloudy	moderate	15.64 33.50
97.65-P	14	0215	31°10.0'	119°39.5'	2000	320°	3	overcast	slight	15.80 33.49
97.70-P	14	0540	30°58.5'	120°00.0'	2000+	320°	3	overcast	moderate	15.78 33.50
97.75-P	14	0910	30°46.5'	120°23.0'	2000+	310°	3	overcast	moderate	15.60 33.53
97.80-P	14	1230	30°35.5'	120°43.0'	2000+	310°	4	overcast	moderate	16.18 33.59
97.85-P	14	1540	30°24.5'	121°03.0'	2000+	320°	2	overcast	slight	16.46 33.53
97.90-P	14	1800	30°19.5'	121°12.5'	2000+	290°	2	overcast	slight	16.50 33.53
100.29-P	16	1725	31°42.0'	116°43.0'	100	320°	4	overcast	moderate	12.08 33.51
100.30-P	16	1620	31°40.5'	116°45.5'	300	320°	4	overcast	rough	12.61 33.48
100.35-P	16	1330	31°28.0'	116°56.0'	685	310°	6	overcast	rough	16.82 33.60
100.40-P	16	0910	31°17.5'	117°19.0'	1050	310°	6	clear	rough	17.10 33.63
100.45-P	16	0600	31°08.0'	117°41.0'	850	320°	5	partly cloudy	rough	16.62 33.51
100.50-P	16	0215	30°58.5'	118°03.0'	950	320°	4	cloudy	rough	16.51 33.54
100.55-P	15	2300	30°49.5'	118°24.5'	1300	310°	4	overcast	rough	16.58 33.50
100.60-P	15	1945	30°39.5'	118°45.0'	2000+	330°	4	cloudy	rough	16.49 33.52
100.65-P	15	1600	30°30.5'	119°06.0'	2000+	330°	3	cloudy	rough	16.54 33.53
100.70-P	15	1250	30°21.0'	119°27.5'	2000+	330°	3	overcast	rough	16.42 33.56

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters	
										T	S
100. 75-P	VII-15	0915	30°12. 0'	119°48. 0'	2000+	320°	3	overcast	moderate	16. 70	33. 53
100. 80-P	15	0545	30°03. 0'	120°09. 0'	2000+	320°	4	cloudy	moderate	16. 52	33. 50
100. 85-P	15	0210	29°53. 0'	120°30. 0'	2000+	330°	4	cloudy	moderate	16. 70	33. 51
100. 90-P	14	2310	29°44. 0'	120°50. 5'	2000+	330°	4	cloudy	slight	16. 30	33. 48
103. 30-P	16	2235	31°05. 5'	116°26. 0'	42	310°	3	partly cloudy	rough	13. 80	33. 48
103. 35-P	17	0125	30°57. 0'	116°45. 0'	1000	310°	4	partly cloudy	rough	17. 14	33. 62
103. 40-P	17	0430	30°48. 0'	117°04. 0'	850	320°	5	fog	rough	16. 78	33. 68
103. 45-P	17	0800	30°39. 0'	117°24. 0'	600a)	280°	5	missing	rough	16. 72	33. 68
103. 50-P	17	1120	30°30. 0'	117°43. 0'	1800	310°	6	missing	rough	16. 45	33. 53
103. 55-P	17	1445	30°21. 5'	118°03. 0'	1150	320°	6	clear	very rough	16. 61	33. 51
103. 60-P	17	1800	30°12. 5'	118°22. 5'	1800	320°	5	clear	very rough	17. 82	33. 49
103. 65-P	17	2120	30°04. 0'	118°41. 0'	1800b)	320°	6	clear	very rough	16. 84	33. 48
103. 70-P	20	1600	29°42. 5'	118°42. 0'	1800	360°	5	overcast	rough	16. 75	33. 40
103. 75-P	20	1230	29°36. 5'	119°07. 5'	1850	360°	4	overcast	rough	17. 20	33. 55
103. 80-P	20	0940	29°29. 0'	119°32. 5'	1950	360°	4	missing	rough	16. 61	33. 46
103. 85-P	20	0545	29°21. 0'	119°57. 0'	2000	350°	6	overcast	rough	16. 98	33. 58

a) Sounding varies from 600 to 1200 fathoms.

b) Sounding varies from 1800 to 1900 fathoms.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
103.90-P	VII-20	0205	29°11.0'	120°21.0'	2000	320°	5	overcast	rough	17.11	33.61
107.32-B	22	1435	30°26.0'	116°11.0'	365	320°	3	overcast	moderate	16.15	33.48
107.35-B	22	1610	30°20.0'	116°23.0'	1000	320°	3	overcast	moderate	17.40	33.58
107.40-B	22	1908	30°10.5'	116°43.5'	1440	320°	3	cloudy	moderate	17.54	33.57
107.45-B	22	2205	30°00.0'	117°03.0'	1100	320°	3	cloudy	moderate	17.48	33.56
107.50-B	23	0105	29°50.5'	117°23.5'	1660	320°	3	cloudy	moderate	17.56	33.66
107.55-B	23	0340	29°40.0'	117°44.0'	1800	320°	3	overcast	moderate	16.99	33.62
107.60-B	23	0640	29°31.0'	118°03.0'	2050	320°	3	overcast	moderate	16.80	33.48
107.65-P	19	0430	29°20.5'	118°22.5'	1900	320°	3	missing	rough	17.32	33.47
107.70-P	19	0750	29°12.5'	118°43.5'	2000+	320°	3	cloudy	rough	17.80	33.71
107.75-P	19	1130	29°05.0'	119°02.5'	2000	330°	4	cloudy	rough	17.69	33.69
107.80-P	19	1430	28°57.0'	119°22.0'	2100	330°	4	overcast	very rough	17.58	33.71
107.85-P	19	1745	28°50.0'	119°41.5'	2000	340°	4	overcast	very rough	17.95	33.73
107.90-P	19	2030	28°42.0'	120°02.0'	2000+	340°	4	overcast	very rough	18.12	33.77
110.33-B	22	0850	29°50.5'	115°52.0'	50	320°	3	overcast	moderate	16.76	33.47
110.35-B	22	0635	29°46.5'	116°00.0'	680	320°	3	overcast	moderate	17.69	33.56
110.40-B	22	0440	29°36.5'	116°19.5'	1380	320°	3	cloudy	moderate	17.77	33.58
110.45-B	22	0145	29°26.0'	116°39.0'	700	320°	3	cloudy	moderate	17.64	33.60
110.50-B	21	2255	29°16.5'	116°59.0'	2000	320°	3	cloudy	moderate	17.56	33.60

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
110.55-B	VII-21	1950	29°06.0'	117°18.0'	2000	320° 3	cloudy	moderate	16.96 33.55
110.60-B	21	1705	28°56.5'	117°39.0'	2050	320° 3	cloudy	moderate	17.35 33.61
110.65-B	21	1405	28°46.0'	117°59.0'	2000+	320° 3	cloudy	moderate	17.04 33.50
110.70-B	21	1115	28°36.5'	118°18.0'	2000+	330° 2	overcast	moderate	16.69 33.51
110.75-B	21	0725	28°26.0'	118°38.0'	2000+	330° 2	overcast	moderate	17.30 33.58
110.80-B	21	0438	28°16.5'	118°56.5'	2200	330° 2	overcast	moderate	17.91 33.60
110.85-B	21	0140	28°06.0'	119°17.0'	2300	330° 2	overcast	moderate	17.88 33.59
110.90-B	20	2300	27°56.0'	119°36.0'	2200	330° 2	overcast	moderate	17.68 33.67
113.30-B	19	1120	29°22.5'	115°17.5'	30	320° 1	clear	moderate	15.67 33.57
113.35-B	19	1410	29°12.0'	115°39.0'	700	320° 2	overcast	moderate	17.51 33.51
113.40-B	19	1725	29°02.0'	115°58.5'	1000	320° 1	cloudy	moderate	17.62 33.51
113.45-B	19	1956	28°52.0'	116°18.0'	1200	calm	partly cloudy	moderate	18.57 33.58
113.50-B	19	2304	28°42.0'	116°37.5'	2050	300° 1	cloudy	moderate	18.14 33.58
113.55-B	20	0138	28°32.0'	116°57.0'	2000	320° 1	overcast	moderate	17.98 33.58
113.60-B	20	0443	28°22.0'	117°16.5'	2100	330° 1	overcast	moderate	18.38 33.62
113.65-B	20	0735	28°12.0'	117°36.0'	2000+	330° 1	overcast	moderate	17.97 33.59
113.70-B	20	1040	28°02.0'	117°55.5'	2000+	330° 1	overcast	moderate	18.02 33.62
113.75-B	20	1320	27°52.0'	118°17.0'	2000+	330° 2	overcast	moderate	17.92 33.59
113.80-B	20	1630	27°41.0'	118°35.5'	2200	330° 2	overcast	moderate	18.22 33.59

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
117.26-B	VII-19	0600	28°56.0'	114°41.0'	40	330°	1	missing	moderate	16.70	33.58
117.30-B	19	0355	28°48.0'	114°56.5'	52	320°	1	cloudy	moderate	16.68	33.60
117.35-B	19	0050	28°38.0'	115°16.0'	110	300°	1	cloudy	moderate	14.92	33.42
117.40-B	18	2140	28°28.0'	115°35.5'	540	330°	1	cloudy	moderate	18.05	33.51
117.45-B	18	1835	28°18.0'	115°55.0'	1750	calm		overcast	moderate	18.17	33.55
117.50-B	18	1420	28°08.0'	116°15.0'	2000+	320°	2	overcast	moderate	17.40	33.56
117.55-B	18	1135	27°58.0'	116°34.0'	2000+	320°	2	overcast	moderate	17.18	33.56
117.60-B	18	0830	27°47.5'	116°54.0'	2000+	320°	2	cloudy	moderate	17.95	33.60
117.65-B	18	0530	27°37.0'	117°13.5'	2150	340°	2	cloudy	moderate	18.19	33.59
117.70-B	18	0225	27°28.0'	117°33.0'	2200	340°	3	cloudy	moderate	18.09	33.57
117.75-B	17	2340	27°17.0'	117°53.0'	2300	320°	3	cloudy	moderate	18.47	33.61
117.80-B	17	2058	27°08.0'	118°11.0'	2460	320°	4	partly cloudy	rough	18.52	33.61
120.25-B	16	0715	28°23.0'	114°14.5'	26	270°	1	missing	missing	17.48	33.64
120.30-B	16	1030	28°13.0'	114°34.0'	42	200°	2	missing	missing	16.18	33.58
120.35-B	16	1312	28°03.0'	114°54.0'	46	230°	2	partly cloudy	moderate	15.98	33.58
120.40-B	16	1600	27°56.5'	115°14.0'	25	310°	4	partly cloudy	moderate	14.17	33.71
120.45-B	16	1845	27°43.0'	115°33.0'	1180	300°	4	cloudy	moderate	16.16	33.59
120.50-B	16	2145	27°33.0'	115°53.0'	2150	320°	3	cloudy	rough	17.02	33.64
120.55-B	17	0050	27°24.0'	116°12.0'	1995	320°	3	overcast	moderate	16.88	33.54

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
120. 60-B	VII-17	0345	27°13.0'	116°32.0'	2000+	320° 2	partly cloudy	moderate	17.92 33.58
120. 70-B	17	0910	26°52.0'	117°10.0'	2000	320° 2	clear	moderate	17.52 33.57
120. 80-B	17	1445	26°32.0'	117°48.0'	2000+	320° 2	cloudy	moderate	18.50 33.64
123. 37-B	13	2040	27°24.0'	114°39.5'	38	330° 2	partly cloudy	slight	12.71 33.86
123. 40-B	13	1825	27°18.0'	114°51.5'	300	330° 2	partly cloudy	moderate	15.76 33.61
123. 45-B	13	1530	27°08.0'	115°11.0'	2320	330° 2	cloudy	moderate	15.74 33.58
123. 50-B	13	1225	26°58.0'	115°31.0'	1990	330° 2	cloudy	moderate	15.73 33.55
123. 55-B	13	0910	26°48.0'	115°50.0'	2000+	330° 2	cloudy	moderate	16.98 33.58
123. 60-B	13	0625	26°38.5'	116°09.0'	2000+	320° 3	missing	moderate	16.70 33.55
127. 34-B	12	1010	26°55.5'	114°06.0'	42	360° 4	clear	moderate	12.44 33.97
127. 40-B	12	1355	26°44.0'	114°30.0'	2000	320° 3	overcast	moderate	17.04 33.58
127. 45-B	12	1610	26°33.0'	114°49.0'	2000+	320° 3	overcast	moderate	16.28 33.52
127. 50-B	12	1855	26°23.5'	115°08.0'	2150	320° 4	overcast	moderate	16.45 33.55
127. 55-B	12	2155	26°13.0'	115°27.0'	2200	320° 4	overcast	moderate	17.08 33.62
127. 60-B	13	0055	26°03.0'	115°47.0'	2000+	320° 3	overcast	moderate	17.30 33.62
130. 30-B	12	0235	26°29.0'	113°29.0'	43	280° 3	partly cloudy	moderate	13.14 34.05
130. 35-B	12	0010	26°20.0'	113°46.0'	130	280° 2	partly cloudy	slight	14.14 33.77
130. 40-B	11	2040	26°05.0'	114°07.0'	350	300° 2	cloudy	moderate	15.06 33.50
130. 50-B	11	1525	25°49.0'	114°46.0'	1840	300° 4	overcast	moderate	16.82 33.53

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
130.60-B	VII-11	0935	25°29.0'	115°24.0'	2200	320°	4	missing	moderate	18.44	33.80
133.25-B	10	1150	26°04.5'	112°48.0'	45	260°	1	missing	slight	14.86	34.09
133.30-B	10	1430	25°54.5'	113°07.5'	115	270°	2	overcast	slight	15.86	33.86
133.40-B	10	1945	25°35.0'	113°45.0'	1300	270°	2	partly cloudy	slight	17.10	33.58
133.50-B	11	0155	25°14.0'	114°24.0'	2200	240°	4	overcast	moderate	17.08	33.57
137.23-B	10	0625	25°34.0'	112°19.0'	40	260°	1	overcast	slight	14.30	33.93
137.30-B	10	0240	25°20.5'	112°45.0'	400	280°	3	cloudy	slight	15.80	33.86
137.40-B	9	2005	25°00.0'	113°23.5'	1200	310°	2	overcast	moderate	17.10	33.57
137.50-B	9	1400	24°37.0'	114°09.0'	1980	310°	4	overcast	moderate	17.50	33.61

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

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PAOLINA-T; September 12, 1955; 0625 GCT; 34°14'N, 119°22'W; sounding, 13 fm; wind, 300°, force 1; weather, fog; sea, slight; wire angle, 00°.

83.40a)

0	16.4	33.60		335	0	16.4	33.60
10	16.03	33.62		325	10	16.03	33.62
20	14.7	-		-	20	14.7	

PAOLINA-T; September 13, 1955; 1731 GCT; 33°35.5'N, 120°43'W; sounding, 840 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 05°.

83.60

0	15.9	33.62		322	0	15.9	33.62
26	-	33.64		-	10		33.63
61	-	33.74		-	20		33.63
106	-	33.88		-	30		33.65
211	7.86	34.18		138	50		33.70
310	7.08	34.25		122	75		33.78
					100		33.86
					150		34.01
					200		34.15
					250		34.22
					300		34.25

PAOLINA-T; September 14, 1955; 1825 GCT; 33°59'N, 119°05.5'W; sounding, 400 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 10°.

85.39

0	14.5	33.53		300	0	14.5	33.53
25	-	33.58		-	10		33.55
59	-	33.51		-	20		33.57
102	-	33.69		-	30		33.58
206	8.90	34.07		161	50		33.53
305	8.21	34.27		144	75		33.54
					100		33.67
					150		33.88
					200		34.05
					250		34.17
					300		34.26

PAOLINA-T; September 14, 1955; 0651 GCT; 33°35.5'N, 119°49'W; sounding, 260 fm; wind, 300°, force 6; weather, clear; sea, rough; wire angle, 25°.

85.50

0	17.5	33.67		354	0	17.5	33.67
23	-	33.57		-	10		33.60
53	-	33.63		-	20		33.57
95	-	33.89		-	30		33.57
190	8.22	34.22		140	50		33.62
281	7.78	34.29		130	75		33.75
					100		33.92
					150		34.13
					200		34.23
					250		34.27

PAOLINA-T; September 13, 1955; 2142 GCT; 33°20'N, 120°31.5'W; sounding, 640 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 22°.

85.60

0	16.3	33.58		334	0	16.3	33.58
23	-	33.57		-	10		33.58
56	-	33.48		-	20		33.58
97	-	33.67		-	30		33.56
196	7.77	34.01		149	50		33.49
290	6.86	34.12		129	75		33.54
					100		33.69
					150		33.88
					200		34.02
					250		34.08

a) Because the same station pattern was repeated several times on Cruise 5509, the stations are grouped by tracks. The stations of each track are presented in numerical order. As a result, stations of the same number will not appear together.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

87.35

PAOLINA-T; September 15, 1955; 1847 GCT; 33°50'N, 118°38'W; sounding, 390 fm; wind, 270°, force 2; weather, clear; sea, moderate; wire angle, 06°.

0	17.8	33.61		366	0	17.8	33.61				
26	15.4	33.57		316	10	17.4	33.60				
60	11.1	33.51		238	20	16.9	33.58				
104	9.7	33.64		205	30	13.9	33.56				
210	8.56	34.10		154	50	11.6	33.52				
308	8.14	34.29		141	75	10.5	33.53				
					100	9.8	33.62				
					150	9.0	33.84				
					200	8.7	34.06				
					250	8.5	34.19				
					300	8.2	34.28				

87.45

PAOLINA-T; September 16, 1955; 0343 GCT; 33°30.5'N, 119°19'W; sounding, 900 fm; wind, 270°, force 5; weather, clear; sea, rough; wire angle, 15°.

0	16.2	33.67		325	0	16.2	33.67				
24	15.3	33.49		320	10	16.2	33.57				
58	10.7	33.62		223	20	16.0	33.50				
101	9.9	33.80		196	30	13.9	33.50				
203	8.26	34.16		145	50	11.0	33.58				
299	7.94	34.29		138	75	10.3	33.70				
					100	9.9	33.80				
					150	9.0	33.99				
					200	8.3	34.15				
					250	8.0	34.24				
					300	(7.9)	(34.29)				

87.60

BLACK DOUGLAS; September 18, 1955; 1311 GCT; 33°00'N, 120°22'W; sounding, 440 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 12°.

0	15.7	33.57		322	0	15.7	33.57				
10	15.67	33.60		317	10	15.67	33.60				
59	-	33.48		-	20	15.6	(33.59)				
103	-	33.52		-	30	15.5	(33.56)				
205	8.46	33.80		175	50	12.5	(33.50)				
303	7.76	34.08		143	75		33.48				
					100		33.52				
					150		33.63				
					200		33.78				
					250		33.93				
					300		34.07				

90.28

PAOLINA-T; September 18, 1955; 0425 GCT; 33°29'N, 117°46'W; sounding, 250 fm; wind, 260°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

0	20.9	33.68		435	0	20.9	33.68				
25	13.3	33.58		262	10	20.9	33.64				
61	10.5	33.46		230	20	14.5	33.60				
107	9.3	33.66		198	30	12.5	33.56				
211	8.98	34.11		159	50	11.1	33.48				
310	8.20	34.31		133	75	10.0	33.49				
					100	9.4	33.62				
					150	8.8	33.88				
					200	8.9	34.08				
					250	8.9	34.20				
					300	8.4	34.29				

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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PAOLINA-T; September 17, 1955; 1055 GCT; 33°06'N, 118°36.5'W; sounding, 500 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 10°.

90.40

0	20.1	33.71		414	0	20.1	33.71				
25	18.0	33.51		378	10	20.1	33.62				
59	11.3	33.44		246	20	20.1	33.55				
102	9.2	33.71		192	30	15.9	33.49				
207	8.20	34.14		146	50	12.0	33.44				
293	7.92	34.31		129	75	10.3	33.50				
					100	9.2	33.69				
					150	8.7	33.96				
					200	8.3	34.12				
					250	8.0	34.23				

PAOLINA-T; September 16, 1955; 1848 GCT; 32°31.5'N, 119°39'W; sounding, 280 fm; wind, 270°, force 7; weather, missing; sea, very rough; wire angle, 21°.

90.55

0	17.2	33.64		350	0	17.2	33.64				
24	17.0	33.55		352	10	17.2	33.60				
56	11.1	33.49		239	20	17.2	33.57				
98	9.1	33.66		195	30	15.6	33.53				
197	7.88	34.16		140	50	11.6	33.49				
289	7.30	34.26		124	75	10.0	33.55				
					100	9.0	33.67				
					150	8.2	33.93				
					200	7.8	34.17				
					250	7.5	34.24				

BLACK DOUGLAS; September 15, 1955; 0205 GCT; 34°14'N, 119°22'W; sounding, 11 fm; wind, 320°, force 2; weather, missing; sea, moderate; wire angle, 10°.

83.40

0	16.8	33.57		346	0	16.8	33.57				
10	13.20	33.55		273	10	13.20	33.55				
20	12.82	33.53		267	20	12.82	33.53				

BLACK DOUGLAS; September 15, 1955; 2227 GCT; 33°34'N, 120°45'W; sounding, 720 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 12°.

83.60

0	15.74	33.66		316	0	15.74	33.66				
98	9.74	33.73		199	10	15.7	(33.66)				
200	8.0	34.14		142	20	15.7	(33.67)				
244	7.8	34.23		133	30	15.7	(33.67)				
279	7.52	34.28		126	50	13.6	(33.69)				
303	-	34.26		-	75	10.3	(33.70)				
					100	9.7	33.74				
					150	8.0	33.93				
					200	8.0	34.14				
					250	7.8	34.24				
					300		34.27				

BLACK DOUGLAS; September 17, 1955; 0029 GCT; 33°59'N, 119°06'W; sounding, 360 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 17°.

85.39

0	19.1	33.60		397	0	19.1	33.60				
10	17.63	33.62		360	10	17.63	33.62				
57	-	33.51		-	20		(33.61)				
100	-	33.67		-	30		(33.58)				
201	8.84	34.07		160	50		(33.52)				
296	8.50	34.25		143	75		33.57				
					100		33.67				
					150		33.87				
					200		34.07				
					250		34.17				

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

85.50

BLACK DOUGLAS; September 16, 1955; 1041, 1118 GCT; 33°37'N, 119°52'W; sounding, 200 fm; wind, 300°, force 6; weather, clear; sea, very rough; wire angle, 15°, 15°.

0	15.9	33.59		324	0	15.9	33.59				
10	15.80	33.60		322	10	15.80	33.60				
58	10.0	33.62		212	20	15.7	(33.60)				
101	9.2	33.97		173	30	12.4	(33.61)				
203	8.56	34.21		145	50	10.9	(33.61)				
					75	9.4	33.75				
299	8.14	34.25		136	100	9.2	33.96				
					150	8.8	34.10				
					200	8.6	34.20				
					250	8.4	34.24				
					300	(8.1)	(34.25)				

85.60

BLACK DOUGLAS; September 16, 1955; 0155 GCT; 33°17'N, 120°33'W; sounding, 760 fm; wind, 300°, force 5; weather, partly cloudy; sea, very rough; wire angle, 28°.

0	16.4	33.58		336	0	16.4	33.58				
88	10.05	33.58		215	10		(33.58)				
181	-	34.02		-	20		(33.58)				
221	-	34.06		-	30		(33.58)				
252	7.24	34.09		136	50		(33.58)				
278	6.96	34.14		128	75		(33.58)				
					100		33.60				
					150		33.86				
					200		34.05				
					250		34.09				

87.35

BLACK DOUGLAS; September 17, 1955; 1802 GCT; 33°50'N, 118°37.5'W; sounding, 300 fm; wind, 270°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	18.2	33.60		376	0	18.2	33.60				
10	17.27	33.60		354	10	17.27	33.60				
60	-	33.53		-	20		(33.59)				
105	-	33.68		-	30		(33.58)				
210	8.69	34.00		163	50		(33.54)				
310	8.34	34.25		139	75		33.56				
					100		33.66				
					150		33.83				
					200		33.97				
					250		34.11				
					300		34.23				

87.45

BLACK DOUGLAS; September 18, 1955; 0129, 0140 GCT; 33°30'N, 119°19'W; sounding, 900 fm; wind, 270°, force 5; weather, partly cloudy; sea, very rough; wire angle, 10°, 10°.

0	17.7	33.66		360	0	17.7	33.66				
10	15.52	33.57		318	10	15.52	33.57				
					20		(33.54)				
59	-	33.51		-	30		(33.53)				
103	-	33.82		-	50		(33.51)				
207	8.55	34.25		142	75		33.58				
305	7.83	34.27		130	100		33.80				
					150		34.05				
					200		34.24				
					250		34.26				
					300		34.27				

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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PAOLINA-T; September 21, 1955; 2256 GCT; 33°00'N, 120°15.5'W; sounding, 250+ fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, missing.

87.60

0	16.0	33.58		327	0	16.0	33.58				
32	15.4	33.85		295	10	15.8	(33.69)				
67	11.4	33.44		248	20	15.7	(33.80)				
101p	10.04	33.58		217	30	15.5	(33.85)				
112	9.2	33.58		199	50	13.9	33.67				
216	7.86	34.02		150	75	11.4	33.45				
					100	10.2	33.53				
					150	8.5	33.73				
					200	8.0	33.95				

BLACK DOUGLAS; September 20, 1955; 2045 GCT; 33°28.5'N, 117°46.5'W; sounding, 290 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 07°.

90.28

0	19.9	33.62		415	0	19.9	33.62				
10	18.41	33.60		380	10	18.41	33.60				
60	-	33.47		-	20	16.1	(33.57)				
104	-	33.60		-	30	14.0	(33.54)				
209	9.09	34.07		164	50	12.0	(33.49)				
309	7.88a)	34.26		132	75		33.50				
					100		33.59				
					150		33.80				
					200		34.03				
					250		34.16				
					300		34.25				

BLACK DOUGLAS; September 19, 1955; 0755 GCT; 33°05'N, 118°36'W; sounding, 350 fm; wind, 290°, force 3; weather, missing; sea, slight; wire angle, 05°.

90.40

0	19.6	33.68		403	0	19.6	33.68				
10	19.83	33.68		409	10	19.83	33.68				
60	11.3	33.40		249	20	15.4	(33.64)				
105	-	33.68		-	30	13.0	(33.57)				
209	8.17	34.14		145	50	11.7	(33.43)				
309	7.62	34.22		132	75		33.46				
					100		33.64				
					150		33.91				
					200		34.11				
					250		34.20				
					300		34.22				

BLACK DOUGLAS; September 18, 1955; 2120 GCT; 32°35'N, 119°37'W; sounding, 620 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°.

90.55

0	17.6	33.68		356	0	17.6	33.68				
10	17.62	33.68		356	10	17.62	33.68				
59	10.8	33.46		236	20	17.6	(33.65)				
103	9.4	33.58		220	30	15.3	(33.60)				
207	8.15	34.16		144	50	11.6	(33.49)				
305	7.34	34.20		129	75	10.2	33.48				
					100	9.5	33.57				
					150	8.6	33.83				
					200	8.2	34.13				
					250	7.8	34.20				
					300	7.4	34.20				

PAOLINA-T; September 19, 1955; 0240 GCT; 34°13.5'N, 119°22.5'W; sounding, 11 fm; wind, 270°, force 5; weather, clear; sea, moderate; wire angle, 00°.

83.40

0	16.3	-		-	0	16.3					
10	13.50	33.52		280	10	13.50	33.52				

a) Alternate value, 8.34°C, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

83.60

PAOLINA-T; September 20, 1955; 0220 GCT; 33°33.5'N, 120°43'W; sounding, 750 fm; wind, 290°, force 5; weather, cloudy; sea, very rough; wire angle, 10°.

0	15.9	33.63		322	0	15.9	33.63				
25	15.8	33.64		319	10	15.9	33.64				
59	11.2	33.50		240	20	15.9	33.64				
103	8.7	33.75		182	30	15.8	33.64				
208	8.06	34.16		142	50	13.0	33.54				
306	7.38	34.22		128	75	9.7	33.55				
					100	8.7	33.72				
					150	8.4	33.97				
					200	8.1	34.14				
					250	7.8	34.20				
					300	7.4	34.22				

85.39

PAOLINA-T; September 20, 1955; 2251 GCT; 33°56.5'N, 119°02.5'W; sounding, 400+ fm; wind, 020°, force 3; weather, clear; sea, slight; wire angle, 23°.

0	19.0	33.62		393	0	19.0	33.62				
23	15.5	33.50		323	10	17.5	33.56				
55	11.1	33.47		240	20	16.0	33.51				
97	9.6	33.62		205	30	14.4	33.49				
193	8.70	33.98		165	50	11.5	33.47				
285	8.42	34.23		142	75	10.2	33.52				
					100	9.5	33.63				
					150	8.9	33.84				
					200	8.7	34.00				
					250	8.6	34.14				

85.50

PAOLINA-T; September 20, 1955; 1422 GCT; 33°38.5'N, 119°50'W; sounding, missing; wind, 300°, force 3; weather, clear; sea, rough; wire angle, 05°.

0	14.5	33.61		294	0	14.5	33.61				
25	11.4	33.68		230	10	14.0	33.64				
60	9.7	33.73		198	20	12.5	33.67				
105	8.7	33.98		165	30	10.4	33.69				
211	8.23	34.21		141	50	9.8	33.71				
311	7.98	34.23		136	75	9.4	33.80				
					100	8.8	33.95				
					150	8.2	34.10				
					200	8.3	34.19				
					250	8.1	34.23				
					300	8.0	34.23				

85.60

PAOLINA-T; September 20, 1955; 0547 GCT; 33°17'N, 120°33.5'W; sounding, 800 fm; wind, 290°, force 5; weather, clear; sea, very rough; wire angle, 05°.

0	16.2	33.55		334	0	16.2	33.55				
25	16.0	33.55		330	10	16.2	33.55				
60	11.2	33.47		242	20	16.1	33.55				
106	9.2	33.66		206	30	16.0	33.54				
209	7.50	34.05		142	50	12.5	33.49				
309	6.69	34.18		122	75	10.3	33.50				
					100	9.3	33.63				
					150	8.2	33.85				
					200	7.6	34.02				
					250	7.2	34.12				
					300	6.8	34.17				

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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PAOLINA-T; September 21, 1955; 0225 GCT; 33°49'N, 118°36.5'W; sounding, 250 fm; wind, 280°, force 5; weather, clear; sea, rough; wire angle, 20°.

87.35

0	17.7	33.58		366	0	17.7	33.58				
23	16.5	33.53		342	10	17.6	33.56				
56	11.6	33.49		248	20	17.5	33.54				
99	9.8	33.64		207	30	14.6	33.52				
197	8.65	34.00		163	50	12.0	33.49				
292	8.94	34.02		165	75	10.7	33.54				
					100	9.8	33.64				
					150	9.0	33.85				
					200	8.7	34.01				
					250	8.8	34.02				

PAOLINA-T; September 21, 1955; 1143 GCT; 33°31.5'N, 119°19'W; sounding, 920 fm; wind, 290°, force 4; weather, fog; sea, rough; wire angle, 05°.

87.45

0	16.6	33.55		353	0	16.6	33.55				
26	13.4	33.44		284	10	16.6	33.50				
61	10.4	33.43		232	20	14.5	33.46				
106	8.9	33.68		190	30	12.8	33.44				
209	8.51	34.15		149	50	11.0	33.43				
311	8.04	34.25		135	75	9.8	33.47				
					100	9.0	33.63				
					150	8.8	33.90				
					200	8.6	34.12				
					250	8.3	34.21				
					300	8.1	34.25				

PAOLINA-T; September 23, 1955; 0933 GCT; 33°28.5'N, 117°46.5'W; sounding, 95 fm; wind, 290°, force 1; weather, overcast; sea, moderate; wire angle, 00°.

90.28

0	19.5	33.64		404	0	19.5	33.64				
25	14.2	33.50		296	10	19.5	33.57				
60	10.75	33.48		234	20	15.1	33.51				
105	9.87	33.59		212	30	13.5	33.49				
					50	11.4	33.48				
					75	10.4	33.51				
					100	10.0	33.57				

PAOLINA-T; September 22, 1955; 1824 GCT; 33°05.5'N, 118°36'W; sounding, 350 fm; wind, 280°, force 3; weather, overcast; sea, moderate; wire angle, 03°.

90.40

0	19.2	33.78		384	0	19.2	33.78				
25	16.5	33.51		344	10	19.2	33.66				
60	11.9	33.38		261	20	18.3	33.55				
105	9.4	33.73		194	30	15.4	33.48				
210	8.02	34.07		148	50	12.8	33.39				
310	7.60	34.24		130	75	10.8	33.45				
					100	9.5	33.69				
					150	8.6	33.91				
					200	8.1	34.05				
					250	7.8	34.15				
					300	7.6	34.23				

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	Z m	T °C	S ‰	O ₂ ml/L	δT_3 10 cm/g	Z m	T °C	S ‰	O ₂ ml/L	σ_t g/L	δT_3 10 cm/g	ΔD dyn. m
90.55	PAOLINA-T; September 22, 1955; 0452 GCT; 32°35'N, 119°36'W; sounding, 600 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 08°.											
	0	17.0	33.57		350	0	17.0	33.57				
	25	17.0	33.58		349	10	17.0	33.58				
	59	11.5	33.44		250	20	17.0	33.58				
	104	8.9	33.68		190	30	17.0	33.57				
	209	7.84	34.11		153	50	11.5	33.48				
	307	7.18	34.23		124	75	10.4	33.49				
						100	9.0	33.65				
						150	8.2	33.89				
						200	7.9	34.08				
						250	7.6	34.18				
						300	7.3	34.22				
83.40	BLACK DOUGLAS; September 21, 1955; 0912 GCT; 34°14'N, 119°20'W; sounding, 11 fm; wind, calm; weather, missing; sea, moderate; wire angle, 00°.											
	0	15.8	33.58		323	0	15.8	33.58				
	10	14.96	33.55		308	10	14.96	33.55				
	20	13.30	33.53		276	20	13.30	33.53				
83.60	BLACK DOUGLAS; September 22, 1955; 0123 GCT; 33°34'N, 120°45'W; sounding, 750 fm; wind, 300°, force 4; weather, overcast; sea, very rough; wire angle, 10°.											
	0	16.1	33.60		334	0	16.1	33.60				
	10	16.01	33.64		323	10	16.01	33.64				
	59	11.1	33.58		233	20	16.0	(33.63)				
	103	8.8	33.79		180	30	15.9	(33.62)				
	207	7.84	34.13		140	50	12.1	(33.58)				
	306	7.30	34.27		124	75	10.0	33.64				
						100	8.8	33.77				
						150	8.3	33.96				
						200	7.9	34.11				
						250	7.6	34.20				
						300	7.3	34.26				
85.39	BLACK DOUGLAS; September 22, 1955; 2045 GCT; 33°59'N, 119°06'W; sounding, 350 fm; wind, 270°, force 1; weather, overcast; sea, slight; wire angle, 13°.											
	0	18.2u	33.60		-	0	17.9	33.60				
	10	17.70	33.62		362	10	17.70	33.62				
	58	11.6	33.46		250	20	17.5	(33.61)				
	102	9.4	33.65		200	30	14.0	(33.57)				
	205	8.70	34.11		155	50	12.1	(33.48)				
	302	8.20	34.26		137	75	10.7	33.51				
						100	9.5	33.64				
						150	9.0	33.89				
						200	8.7	34.09				
						250	8.5	34.20				
						300	8.21	34.26				
85.50	BLACK DOUGLAS; September 22, 1955; 1215 GCT; 33°37'N, 119°52'W; sounding, 120 fm; wind, 240°, force 1; weather, missing; sea, moderate; wire angle, 00°.											
	0	14.2u	33.66		-	0	14.1	33.66				
	10	14.10	33.75		276	10	14.10	33.75				
	25	10.8	33.81		210	20	11.2	33.79				
	60	9.7	34.26r		-	30	10.7	(33.89)				
	105	8.65	33.96		165	50	10.1	(33.86)				
	210	8.10	34.14		142	75	9.2	(33.91)				
						100	8.8	(33.95)				
						150	8.3	34.04				
						200	8.1	34.12				

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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BLACK DOUGLAS; September 22, 1955; 0443 GCT; 33°17'N, 120°33'W; sounding, 750 fm; wind, 280°, force 4; weather, missing; sea, rough; wire angle, 32°.

85.60

0	15.8u	33.57	-	0	16.0	33.57
8	16.01	33.58	330	10	16.0	(33.58)
51	11.7	33.47	251	20	16.0	(33.56)
90	9.6	33.61	206	30	15.9	(33.53)
178	8.07	33.98	156	50	11.8	(33.47)
263	7.16	34.07	136	75	10.2	33.55
				100	9.2	33.66
				150	8.4	33.87
				200	7.8	34.02
				250	7.3	34.06

BLACK DOUGLAS; September 23, 1955; 0021 GCT; 33°50'N, 118°37.5'W; sounding, 290 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.

87.35

0	17.8	33.59	367	0	17.8	33.59
10	17.82	33.57	368	10	17.82	33.57
58	11.8	33.48	252	20	14.9	(33.55)
101	9.7	33.66	204	30	14.8	(33.53)
203	8.86	34.07	161	50	12.7	(33.49)
299	8.22	34.25	138	75	10.4	33.54
				100	9.8	33.66
				150	9.3	33.87
				200	8.90	34.06
				250	8.5	34.17
				300	(8.2)	(34.25)

BLACK DOUGLAS; September 23, 1955; 0735 GCT; 33°30'N, 119°19'W; sounding, 920 fm; wind, 220°, force 1; weather, clear; sea, slight; wire angle, 15°.

87.45

0	16.8	33.58	345	0	16.8	33.58
10	16.76	33.57	345	10	16.76	33.57
58	11.4	33.42	250	20	16.4	(33.54)
101	9.7	33.58	210	30	13.5	(33.51)
203	8.64	34.17	150	50	11.8	(33.43)
299	7.98	34.31	140	75	10.5	33.45
				100	9.8	33.57
				150	8.9	33.86
				200	8.7	34.16
				250	8.4	34.26
				300	(7.9)	(34.31)

BLACK DOUGLAS; September 23, 1955; 1757 GCT; 33°00'N, 120°21'W; sounding, 390 fm; wind, 280°, force 2; weather, overcast; sea, slight; wire angle, 05°.

87.60

0	16.1	33.57	330	0	16.1	33.57
10	16.11	33.58	330	10	16.11	33.58
60	12.0	33.48	256	20	15.5	(33.57)
105	10.1	33.55	219	30	15.9	(33.54)
209	8.08	34.04	151	50	13.9	(33.50)
309	7.24	34.18	129	75	11.1	33.49
				100	10.3	33.54
				150	9.0	33.75
				200	8.2	34.00
				250	7.6	34.12
				300	7.3	34.17

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

90.28

BLACK DOUGLAS; September 25, 1955; 0535 GCT; 33°28.5'N, 117°47'W; sounding, 200 fm; wind, 260°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	19.1	33.67		392	0	19.1	33.67				
10	16.36	33.55		337	10	16.36	33.55				
60	11.2	33.46		243	20	15.2	(33.52)				
105	9.4	33.64		200	30	14.1	(33.50)				
210	8.89	34.12		157	50	11.9	(33.47)				
310	8.18	34.27		136	75	10.5	33.50				
					100	9.6	33.61				
					150	9.0	33.86				
					200	9.0	34.09				
					250	8.6	34.19				
					300	8.3	34.26				

90.40

BLACK DOUGLAS; September 24, 1955; 1800 GCT; 33°05'N, 118°38'W; sounding, 300 fm; wind, 300°, force 2; weather, overcast; sea, slight; wire angle, 03°.

0	18.1	33.70		366	0	18.1	33.70				
10	18.00	33.69		364	10	18.00	33.69				
60	11.4	33.44		248	20	17.9	(33.66)				
105	9.5	33.69		198	30	16.5	(33.60)				
210	8.09	34.11		146	50	12.0	(33.47)				
310	7.59	34.21		132	75	10.7	33.49				
					100	9.7	33.65				
					150	8.7	33.90				
					200	8.2	34.09				
					250	7.9	34.16				
					300	7.6	34.20				

90.55

BLACK DOUGLAS; September 24, 1955; 0000 GCT; 32°35'N, 119°37'W; sounding, 610 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 20°.

0	17.1	33.64		337	0	17.1	33.64				
9	17.01	33.63		336	10	17.0	(33.63)				
56	12.1	33.52		255	20	15.7	(33.61)				
99	9.5	33.58		206	30	15.2	(33.58)				
197	8.17	34.08		150	50	12.2	(33.53)				
291	7.55	34.16		135	75	10.3	33.53				
					100	9.5	33.58				
					150	8.9	33.80				
					200	8.1	34.09				
					250	7.7	34.14				

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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FIRST TRACK

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
83.42-P	IX-12	0930	34°15.0'	119°33.5'	58	300°	1	fog	slight	16.22 33.61
83.44-P	12	2245	34°14.0'	119°46.0'	148	280°	4	fog	moderate	16.07 33.62
83.46-P	13	0100	34°14.5'	120°00.0'	350	280°	4	fog	moderate	16.18 33.63
83.48-P	13	0400	33°58.5'	119°55.0'	50	300°	4	clear	slight	16.33 33.62
83.51-P	13	0820	33°52.0'	120°08.0'	123	260°	4	clear	rough	17.12 33.68
83.52 ⁵ -P	13	1030	33°47.5'	120°16.0'	180	270°	4	clear	moderate	17.17 33.68
83.55-P	13	1240	33°44.0'	120°24.0'	680	280°	4	missing	rough	17.18 33.65
83.57 ⁵ -P	13	1500	33°39.0'	120°34.5'	600	270°	4	overcast	rough	15.78 33.63
85.40-P	14	1650	33°57.5'	119°11.0'	48	320°	5	clear	moderate	16.10 33.55
85.42 ⁵ -P	14	1245	33°53.0'	119°21.0'	470	300°	1	clear	slight	17.22 33.65
85.45-P	14	1110	33°47.5'	119°30.5'	990	var.	1	partly cloudy	moderate	16.61 33.60
85.47 ⁵ -P	14	0900	33°41.5'	119°40.5'	990	320°	6	clear	very rough	16.90 33.68
85.52 ⁵ -P	14	0404	33°30.0'	119°58.5'	340	290°	5	clear	rough	15.98 33.68
85.55-P	14	0200	33°26.5'	120°12.0'	680	330°	6	clear	rough	16.44 33.68
85.57 ⁵ -P	13	2330	33°23.0'	120°24.5'	550	330°	5	clear	rough	16.47 33.58
87.37 ⁵ -P	15	2050	33°43.0'	118°51.5'	500	270°	3	clear	rough	19.45 33.70
87.40-P	15	2255	33°41.0'	118°56.5'	490	270°	5	clear	moderate	18.84 33.67
87.42 ⁵ -P	16	0120	33°35.5'	119°09.0'	143	270°	6	clear	rough	18.78 33.66

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
87.47 ⁵ -P	IX-16	0620	33°25.0'	119°29.5'	450	270°	6	clear	very rough	15.84	33.66
87.50-P	16	0930	33°19.0'	119°38.0'	39	270°	6	clear	very rough	15.53	33.64
87.52 ⁵ -P	16	1210	33°15.0'	119°49.5'	65	270°	6	clear	very rough	15.45	33.64
90.30-P	18	0231	33°24.5'	117°55.0'	340	240°	2	cloudy	moderate	17.62	33.53
90.32 ⁵ -P	18	0045	33°19.5'	118°05.0'	460	240°	3	cloudy	moderate	20.07	33.71
90.35-P	17	1500	33°16.0'	118°15.5'	105	290°	4	overcast	rough	17.86	33.60
90.37 ⁵ -P	17	1300	33°12.0'	118°27.0'	650	310°	3	overcast	rough	19.14	33.63
90.42 ⁵ -P	17	0820	32°59.0'	118°45.5'	720	290°	4	overcast	very rough	19.33	33.71
90.45-P	17	0620	32°54.0'	118°55.5'	930	300°	6	overcast	very rough	18.60	33.63
90.47 ⁵ -P	17	0403	32°48.5'	119°05.5'	600	270°	6	overcast	very rough	18.26	33.65
90.50-P	16	2350	32°45.0'	119°16.0'	135	300°	5	cloudy	very rough	17.66	33.64
90.52 ⁵ -P	16	2200	32°40.0'	119°25.0'	530	270°	6	cloudy	very rough	18.0a)	-
83.42-B	15	0530	34°14.0'	119°34.0'	50	280°	4	missing	rough	17.08	33.66
83.44-B	15	0740	34°14.0'	119°46.0'	137	280°	4	missing	rough	16.49	33.67
83.46-B	15	1000	34°14.0'	120°00.0'	320	220°	5	missing	rough	15.41	33.65
83.48-B	15	1210	33°58.0'	119°55.0'	50	270°	6	clear	rough	14.16	33.60
83.51-B	15	1500	33°52.0'	120°09.0'	200	300°	5	clear	rough	14.68	33.61

a) Temperature from bathythermograph.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T	S
83.52 ⁵ -B	IX-15	1650	33°48.0'	120°16.5'	400	300°	5	clear	very rough	16.16	33.62
83.55-B	15	1815	33°44.0'	120°24.5'	535	300°	4	clear	very rough	15.12	33.62
83.57 ⁵ -B	15	2015	33°39.0'	120°35.0'	740	300°	5	clear	rough	-	33.67
85.40-B	16	2318	33°57.0'	119°10.5'	480	300°	1	partly cloudy	slight	15.04	33.55
85.42 ⁵ -B	16	1953	33°52.0'	119°21.0'	400	300°	1	overcast	slight	18.48a)	33.64
85.45-B	16	1533	33°47.0'	119°31.0'	1020	300°	1	cloudy	slight	15.11	33.62
85.47 ⁵ -B	16	1300	33°42.0'	119°41.5'	900	320°	3	clear	moderate	15.79	33.64
85.52 ⁵ -B	16	0815	33°32.0'	120°02.0'	500	300°	6	missing	high	14.62	33.60
85.55-B	16	0610	33°27.0'	120°12.0'	640	300°	5	clear	very rough	16.24	33.62
85.57 ⁵ -B	16	0405	33°22.0'	120°23.0'	540	300°	5	clear	very rough	16.27	33.57
87.37 ⁵ -B	17	1955	33°45.0'	118°48.0'	500	270°	1	clear	slight	18.90	33.61
87.40-B	17	2123	33°40.0'	118°58.5'	480	270°	2	clear	moderate	19.94	33.66
87.42 ⁵ -B	17	2329	33°35.0'	119°09.0'	240	270°	3	clear	moderate	17.56	33.58
87.47 ⁵ -B	18	0415	33°25.0'	119°29.0'	450	310°	5	clear	very rough	14.34	33.64
87.50-B	18	0600	33°20.0'	119°39.0'	40	320°	5	missing	very rough	14.79	33.63
87.52 ⁵ -B	18	0750	33°15.0'	119°50.0'	60	320°	5	missing	very rough	15.14	33.60
87.55-B	18	0934	33°10.0'	120°00.0'	680	270°	5	cloudy	very rough	15.94	33.60

a) Alternate value, 18.02°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
87.57 ⁵ -B	IX-18	1120	33°05.0'	120°11.0'	360	320°	8	missing	very rough	15.93 33.55
90.30-B	20	1915	33°24.5'	117°55.0'	330	270°	1	clear	slight	19.13 33.64
90.32 ⁵ -B	20	1750	33°19.5'	118°05.0'	420	270°	1	clear	slight	18.57 33.59
90.35-B	19	1150	33°15.0'	118°15.0'	250	calm		missing	slight	18.49 33.61
90.37 ⁵ -B	19	0950	33°10.0'	118°25.0'	680	280°	1	missing	slight	18.73 33.63
90.42 ⁵ -B	19	0552	32°59.0'	118°46.0'	750	300°	3	clear	moderate	16.82 33.58
90.45-B	19	0419	32°55.0'	118°56.0'	940	320°	3	cloudy	moderate	18.42 33.68
90.47 ⁵ -B	19	0237	32°50.0'	119°06.0'	750	300°	3	cloudy	moderate	17.32 33.63
90.50-B	19	0055	32°45.0'	119°17.0'	135	320°	4	partly cloudy	rough	16.00 33.61
90.52 ⁵ -B	18	2320	32°40.0'	119°26.0'	580	320°	5	partly cloudy	rough	17.43 33.58
SECOND TRACK										
83.42-P	19	0440	34°14.5'	119°33.0'	50	280°	4	clear	rough	15.64 33.68
83.44-P	19	0700	34°15.5'	119°47.0'	103	250°	2	clear	rough	14.63 33.58
83.46-P	19	1055	34°14.0'	120°02.0'	320	calm		clear	moderate	15.76 -
83.48-P	19	1340	33°58.5'	119°55.0'	60	300°	2	clear	slight	15.05 33.58
83.51-P	19	1800	33°51.5'	120°08.5'	95	270°	5	cloudy	rough	13.48 33.62
83.52 ⁵ -P	19	2025	33°49.0'	120°19.5'	400	290°	5	overcast	rough	14.67 33.59
83.55-P	19	2150	33°44.0'	120°25.0'	580	270°	4	cloudy	moderate	15.16 33.69
83.57 ⁵ -P	20	0000	33°38.0'	120°34.5'	650	290°	5	cloudy	rough	14.89 33.62

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
85.40-P	IX-20	2050	33°58.0'	119°13.5'	420	020°	3	clear	moderate	18.0a) -
85.42 ⁵ -P	20	1845	33°53.0'	119°23.0'	400	020°	3	clear	moderate	16.94 33.61
85.45-P	20	1739	33°49.5'	119°29.0'	700	020°	3	clear	moderate	16.28 33.58
85.47 ⁵ -P	20	1605	33°43.0'	119°39.5'	1000	calm		clear	rough	13.90 33.62
85.52 ⁵ -P	20	1200	33°32.5'	120°01.5'	400	320°	5	partly cloudy	very rough	15.40 33.62
85.55-P	20	1005	33°27.5'	120°12.0'	680	320°	6	clear	very rough	15.77 33.59
85.57 ⁵ -P	20	0755	33°22.0'	120°23.0'	500	300°	5	clear	very rough	15.98 33.57
87.37 ⁵ -P	21	0440	33°45.0'	118°48.0'	500	280°	5	clear	rough	17.51 33.59
87.40-P	21	0640	33°40.5'	118°59.5'	485	280°	3	clear	slight	16.96 33.59
87.42 ⁵ -P	21	0920	33°35.5'	119°09.5'	175	280°	3	clear	moderate	16.23 33.58
87.47 ⁵ -P	21	1340	33°27.5'	119°29.5'	425	290°	4	fog	rough	14.72 33.62
87.50-P	21	1532	33°20.5'	119°39.5'	45	290°	5	overcast	rough	15.04 33.59
87.52 ⁵ -P	21	1715	33°15.0'	119°48.5'	80	280°	5	overcast	very rough	15.26 33.60
87.55-P	21	1855	33°10.0'	119°57.5'	660	300°	5	overcast	very rough	15.82 33.58
87.57 ⁵ -P	21	2050	33°05.0'	120°06.5'	400	320°	5	overcast	moderate	15.95 33.55
90.30-P	23	0735	33°24.5'	117°55.0'	340	220°	4	overcast	moderate	19.12 33.68
90.32 ⁵ -P	23	0555	33°19.5'	118°05.0'	450	180°	3	overcast	moderate	19.06 33.68

a) Temperature from bathythermograph.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
90.35-P	IX-22	2300	33°16.0'	118°15.0'	125	280°	3	cloudy	moderate	19.17 33.68
90.37 ⁵ -P	22	2050	33°11.5'	118°24.0'	650	290°	3	cloudy	moderate	17.79 33.60
90.42 ⁵ -P	22	1641	33°00.5'	118°45.0'	700	320°	2	overcast	moderate	17.21 33.64
90.45-P	22	1515	32°55.5'	118°55.5'	900+	320°	3	overcast	moderate	18.28 33.69
90.47 ⁵ -P	22	1340	32°50.5'	119°06.0'	650	320°	3	overcast	moderate	15.77 33.63
90.50-P	22	1202	32°45.5'	119°16.5'	210	320°	3	overcast	moderate	17.37 33.65
90.52 ⁵ -P	22	0645	32°40.5'	119°24.5'	650	280°	5	overcast	very rough	17.20 33.62
83.42-B	21	1050	34°14.0'	119°32.0'	47	calm		missing	slight	15.74a) 33.66
83.44-B	21	1230	34°14.0'	119°44.0'	95	220°	2	missing	slight	15.20 33.64
83.46-B	21	1439	34°14.0'	120°00.0'	320	270°	1	partly cloudy	slight	14.3b) 33.62
83.48-B	21	1717	33°58.0'	119°55.0'	100	270°	1	overcast	slight	15.12 33.58
83.51-B	21	1900	33°52.0'	120°08.0'	90	270°	2	overcast	rough	14.92 33.57
83.53-B	21	2040	33°48.0'	120°16.5'	400	290°	3	hazy	moderate	14.07 33.57
83.55-B	21	2200	33°44.0'	120°25.0'	580	290°	3	overcast	rough	14.3b) 33.60
83.57 ⁵ -B	21	2335	33°39.5'	120°35.0'	640	290°	3	cloudy	rough	14.7b) 33.58
85.40-B	22	1930	33°57.0'	119°10.5'	400	270°	2	overcast	slight	18.24 33.64

a) Alternate value, 17.80°C.

b) Temperature from bathythermograph.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
85.42 ⁵ -B	IX-22	1753	33°52.0'	119°21.0'	400	270° 1	overcast	slight	17.08 33.61
85.45-B	22	1603	33°47.0'	119°31.0'	1000	270° 2	overcast	moderate	15.08 33.53
85.47 ⁵ -B	22	1400	33°42.0'	119°42.0'	900	270° 1	overcast	slight	13.92 33.64
85.52 ⁵ -B	22	1015	33°32.0'	120°02.5'	490	290° 1	missing	slight	14.90 33.58
85.55-B	22	0810	33°27.0'	120°13.0'	650	290° 2	missing	rough	15.22 33.58
85.57 ⁵ -B	22	0643	33°22.0'	120°23.0'	540	270° 3	missing	moderate	15.85 33.57
87.37 ⁵ -B	23	0221	33°45.0'	118°48.0'	500	270° 2	clear	moderate	17.18 33.59
87.40-B	23	0359	33°40.0'	118°58.5'	450	270° 2	clear	slight	16.20 33.57
87.42 ⁵ -B	23	0545	33°35.0'	119°08.5'	220	240° 1	clear	moderate	16.48 33.59
87.47 ⁵ -B	23	0920	33°25.0'	119°29.0'	450	270° 1	clear	slight	15.16 33.62
87.50-B	23	1050	33°20.0'	119°39.5'	48	270° 1	missing	slight	15.02 33.60
87.52 ⁵ -B	23	1245	33°15.0'	119°50.0'	100	270° 1	missing	moderate	15.94 33.58
87.55-B	23	1428	33°10.0'	120°00.0'	640	260° 2	cloudy	moderate	15.96 33.60
87.57 ⁵ -B	23	1559	33°05.0'	120°11.0'	270	270° 1	cloudy	moderate	15.94 33.58
90.30-B	25	0350	33°24.0'	117°55.0'	330	280° 2	clear	slight	19.04 33.64
90.32 ⁵ -B	25	0215	33°19.0'	118°05.5'	440	290° 2	clear	slight	19.07 33.66
90.35-B	25	0026	33°15.0'	118°15.5'	250	290° 2	clear	slight	18.78 33.66
90.37 ⁵ -B	24	2245	33°10.0'	118°25.0'	680	270° 1	partly cloudy	slight	18.52 33.60

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
90.42 ⁵ -B	IX-24	1545	32°59.0'	118°46.0'	750	270°	2	overcast	moderate	17.73 33.65
90.45-B	24	1415	32°54.5'	118°56.0'	920	300°	2	cloudy	moderate	18.50 33.69
90.47 ⁵ -B	24	1233	32°50.0'	119°06.0'	720	320°	2	overcast	moderate	17.03 33.60
90.50-B	24	1055	32°44.5'	119°16.5'	150	330°	2	overcast	slight	16.32 33.66
91 ⁵ .50-B	24	0630	32°24.0'	119°07.5'	150	270°	2	overcast	slight	18.20 33.83
90.52 ⁵ -B	24	0150	32°39.5'	119°26.0'	680	300°	3	overcast	slight	17.16 33.60

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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BLACK DOUGLAS; October 17, 1955; 1527 GCT; 37°47.5'N, 123°15'W; sounding, 60 fm; wind, 110°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.

60.55

0	12.18	33.72	5.76	241	0	12.18	33.72	5.76	25.58	241	0.00
10	12.18	33.72	5.70	241	10	12.18	33.72	5.70	25.58	241	0.02
14	12.17	33.71	5.77	242	20	12.08	33.72	5.73	25.60	240	0.05
19	12.11	33.72	5.76	240	30	11.72	33.72	5.60	25.67	233	0.07
24	11.95	33.73	5.69	236	50	11.18	33.76	5.44	25.79	221	0.12
29	11.75	33.72	5.58	234	75	9.72	33.86	3.78	26.13	189	0.17
33	11.59	33.73	5.61	230							
43	11.52	33.74	5.55	228							
53	10.94	33.77	5.36	216							
62	10.24	33.83	4.51	200							
77	9.65	33.86	3.72	188							

BLACK DOUGLAS; October 17, 1955; 1916, 1942 GCT; 37°37'N, 123°37'W; sounding, 1850 fm; wind, 120°, force 1; weather, cloudy; sea, moderate; wire angle, 00°, 00°.

60.60

0	13.0	33.70	6.08	258	0	13.0	33.70	6.08	25.41	258	0.00
8	12.94	33.71a)	5.95	256	10	12.87	33.71	5.90	25.44	255	0.03
23	12.26	33.69	5.59	245	20	12.43	33.70	5.69	25.51	248	0.05
46	9.96	33.78	3.57	198	30	11.70	33.70	5.18	25.66	234	0.08
55	9.34	33.82	3.17	186	50	9.62	33.80	3.33	26.10	192	0.12
64	9.14	33.83	2.84	182	75	8.96	33.89	2.79	26.28	175	0.16
73	8.98	33.88	2.79	176	100	8.46	33.93	2.84	26.39	165	0.21
91	8.72	33.92	2.89	169	150	8.12	34.10	2.00	26.57	147	0.29
					200	7.71	34.13	1.54	26.66	139	0.36
114	8.15	33.96	2.67	158	250	7.04	34.09	1.56	26.73	133	0.43
141	8.14	34.04a)	2.09	152	300	6.57	34.10	1.37	26.80	126	0.49
187	7.86	34.14	1.54	141	400	6.05	34.17	0.95	26.91	115	0.62
251	7.01	34.09	1.57	133	500	5.72	34.25	0.60	27.02	105	0.73
348	6.26	34.13	1.14	120	600	5.06	34.31	0.32	27.14	93	0.84
468	5.82	34.23	0.68	107	700	4.47	34.38	(0.39)	27.27	81	0.93
642	4.78	34.34	0.32	87	800	4.11	34.45	(0.50)	27.35	73	1.01
852	4.10	34.47	0.78r	71	1000	3.71	34.50	(0.66)	27.44	65	1.16
1143	3.30	34.52	0.81	60							

BLACK DOUGLAS; October 18, 1955; 0230 GCT; 37°17'N, 124°21'W; sounding, 1740 fm; wind, 090°, force 3; weather, drizzle; sea, rough; wire angle, 10°.

60.70

0	13.8	32.74	6.11	344	0	13.8	32.74	6.11	24.50	344	0.00
10	12.99	32.82	6.24	322	10	12.99	32.82	6.24	24.73	322	0.03
24	10.90	33.10	6.12	265	20	11.39	33.00	6.19	25.17	280	0.06
47	10.02	33.47	5.43	223	30	10.55	33.20	5.90	25.47	252	0.09
56	9.90	33.58	5.22	213	50	9.98	33.51	5.34	25.82	219	0.14
65	9.95	33.68	4.56	206	75	9.60	33.69	3.99	26.02	200	0.19
74	9.64	33.69	3.99	201	100	9.18	33.83	4.03	26.19	183	0.24
92	8.84	33.71	4.07	187	150	8.06	34.02	2.06	26.52	152	0.32
114	8.69	33.86	3.26	174	200	7.64	34.08	1.75	26.62	142	0.40
141	8.17	33.98	2.18	157	250	6.90	34.08	1.86	26.73	132	0.47
186	7.82	34.08	1.75	145	300	6.55	34.11	1.50	26.81	125	0.53
250	6.90	34.08	1.86	132	400	6.15	34.19	0.80	26.92	114	0.66
344	6.38	34.16	0.99	119	500	5.62	34.26	0.57	27.04	103	0.77
461	5.80	34.23	0.66	107	600	5.27	34.32	0.38	27.13	94	0.87
634	5.16	34.35	0.37	91	700	4.98	34.36	0.37	27.19	88	0.97
835	4.32	34.42	0.39	77	800	4.54	34.41	0.37	27.28	80	1.06
1122	3.50	34.52	0.68	61	1000	3.90	34.46	0.50	27.39	70	1.22

a) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

60.80

BLACK DOUGLAS; October 18, 1955; 1002 GCT; 36°57'N, 125°04'W; sounding, 2000+ fm; wind, 120°, force 2; weather, drizzle; sea, rough; wire angle, 07°.

0	15.3	32.93	6.70	360	0	15.3	32.93	6.70	24.33	360	0.00
10	14.97	32.92	6.66	354	10	14.97	32.92	6.66	24.40	354	0.04
24	12.81	32.85	6.40	316	20	13.35	32.87	6.47	24.70	326	0.07
48	11.45	33.14	6.29	271	30	12.32	32.89	6.37	24.92	304	0.10
57	11.84	33.38	6.21	260	50	11.46	33.16	6.27	25.28	270	0.16
66	11.46	33.40	6.00	252	75	11.00	33.42	5.78	25.57	242	0.22
76	10.98	33.42	5.77	242	100	9.16	33.36	4.66	25.83	218	0.28
94	9.48	33.32	4.86	225	150	8.47	33.89	2.30	26.35	168	0.38
117	8.63	33.63	4.14	190	200	8.19	34.04	2.01	26.51	153	0.46
145	8.50	33.87	2.89	170	250	7.43	34.06	1.83	26.64	141	0.53
191	8.32	34.03	2.05	155	300	7.16	34.12	1.51	26.72	133	0.60
255	7.37	34.06	1.81	140	400	6.39	34.22	0.85	26.91	115	0.73
353	6.82	34.22a)	0.90	121	500	5.43	34.23	0.72	27.04	103	0.85
473	5.68	34.22	0.79	106	600	4.88	34.31	0.47	27.16	91	0.95
645	4.74	34.33	0.42	88	700	4.59	34.35	0.40	27.24	84	1.14
855	4.08	34.42	0.34	76	800	4.27	34.39	0.36	27.30	78	1.13
1146	3.32	34.51	0.27	60	1000	3.65	34.47	0.29	27.42	67	1.29

60.90

BLACK DOUGLAS; October 18, 1955; 1706 GCT; 36°39'N, 125°49'W; sounding, 2050 fm; wind, 130°, force 3; weather, cloudy; sea, very rough; wire angle, 10°.

0	16.2	33.08	5.73	368	0	16.2	33.08	5.73	24.25	368	0.00
10	16.06	33.09	5.71	365	10	16.06	33.09	5.71	24.28	365	0.04
24	16.06	33.09	5.69	365	20	16.06	33.09	5.69	24.28	365	0.07
48	15.88	33.09	5.74	361	30	16.04	33.09	5.69	24.29	364	0.11
57	15.74	33.10	5.71	357	50	15.84	33.09	5.73	24.34	360	0.18
67	13.30	33.04	6.16	312	75	12.17	33.07	6.16	25.08	289	0.26
76	12.02	33.07	6.16	286	100	10.75	33.07	5.83	25.34	264	0.33
95	10.94	33.06	5.87	268	150	9.34	33.43	4.78	25.86	215	0.46
118	10.19	33.12	5.69	251	200	8.38	33.88	3.49	26.36	167	0.55
145	9.42	33.38	4.93	220	250	7.80	33.99	3.20	26.54	151	0.64
191	8.52	33.84	3.60	172	300	7.18	34.03	2.45	26.65	140	0.71
255	7.74	34.00	3.15	149	400	6.06	34.08	1.52	26.84	122	0.87
351	6.48	34.06	1.60	129	500	5.41	34.17	1.37	27.00	107	0.97
469	5.54	34.14	1.42	111	600	5.03	34.29	0.47	27.13	94	1.07
637	4.93	34.34	0.38	89	700	4.77	34.38	0.38	27.24	84	1.17
845	4.27	34.45	0.38	74	800	4.47	34.43	0.38	27.31	78	1.26
1133	3.50	34.51	0.57	62	1000	3.77	34.49	0.51	27.43	66	1.42

63.52

BLACK DOUGLAS; October 17, 1955; 0842, 0855 GCT; 37°19'N, 122°36'W; sounding, 45 fm; wind, 130°, force 2; weather, missing; sea, slight; wire angle, 04°, 04°.

0	12.38	33.68	5.81	248	0	12.38	33.68	5.81	25.51	248	0.00
9	12.41	33.69	5.58	248	10	12.39	33.69	5.53	25.52	248	0.02
15	11.54	33.73	5.30	229	20	11.13	33.76	4.62	25.81	220	0.05
					30	10.55	33.78	3.68	25.93	208	0.07
19	11.22	33.75	4.78	222	50	9.63	33.83	2.85	26.12	190	0.11
23	10.81	33.77	4.12	213							
28	10.61	33.78	3.72	210							
33	10.32	33.78	3.65	205							
43	9.72	33.82	3.02	192							
52	9.61	33.84	2.76	189							
67	9.44	33.86	2.46	185							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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BLACK DOUGLAS; October 17, 1955; 0605 GCT; 37°14'N, 122°49.5'W; sounding, 105 fm; wind, 070°, force 2; weather, missing; sea, slight; wire angle, 03°.

63.55

0	12.86	33.71	5.83	255	0	12.86	33.71	5.83	25.44	255	0.00
10	12.54	33.74	5.70	246	10	12.54	33.74	5.70	25.53	246	0.02
14	11.79	33.71	5.43	235	20	10.58	33.77	4.16	25.91	210	0.05
19	10.76	33.76	4.37	214	30	10.00	33.79	3.24	26.03	198	0.07
24	10.27	33.79	3.80	204	50	9.47	33.84	2.86	26.16	187	0.11
28	10.11	33.79	3.35	200							
33	9.84	33.80	3.17	196							
43	9.55	33.83	2.91	189							
53	9.42	33.84	2.80	186							

BLACK DOUGLAS; October 16, 1955; 1955 GCT; 36°49'N, 122°04.5'W; sounding, 58 fm; wind, 100°, force 1; weather, cloudy; sea, slight; wire angle, 02°.

67.50

0	12.31	33.69	5.77	246	0	12.31	33.69	5.77	25.53	246	0.00
9	12.09	33.69	5.72	242	10	12.04	33.69	5.68	25.59	241	0.02
14	11.79	33.69	5.39	236	20	11.05	33.70	4.40	25.77	223	0.05
19	11.10	33.69	4.52	225	30	10.40	33.73	3.80	25.91	210	0.07
23	10.86	33.72	4.10	218	50	9.68	33.82	3.05	26.11	191	0.11
28	10.49	33.72	3.86	212	75	9.39	33.87	2.48	26.19	183	0.16
33	10.28	33.76	3.66	206							
43	9.84	33.80	3.19	196							
52	9.62	33.83	3.02	190							
61	9.46	33.86	2.73	185							
76	9.38	33.87	2.48	183							

BLACK DOUGLAS; October 16, 1955; 2340 GCT; 36°39'N, 122°26'W; sounding, 1150 fm; wind, 180°, force 2; weather, cloudy; sea, slight; wire angle, 04°.

67.55

0	12.9	33.71	6.76	255	0	12.9	33.71	6.76	25.44	255	0.00
9	12.78	33.71	7.00	253	10	12.76	33.71	6.99	25.47	252	0.02
28	10.19	33.74	3.81	206	20	11.26	33.73	5.14	25.76	224	0.05
37	9.79	33.78	3.20	196	30	10.07	33.74	3.60	25.98	203	0.07
46	9.59	33.84	3.01	189	50	9.55	33.87	2.93	26.17	186	0.11
55	9.47	33.88	3.12u	184	75	9.20	33.86	2.75	26.22	181	0.16
64	9.32	33.88	2.64	181	100	8.81	33.94	2.70	26.34	170	0.20
73	9.22	33.86	2.74	181	150	8.34	34.05	2.00	26.50	154	0.28
82	9.00	33.91	2.76	174	200	7.93	34.16	1.73	26.65	140	0.36
91	8.92	33.92	2.85u	172	250	7.40	34.16	1.90	26.73	133	0.42
113	8.64	33.98	2.59	164	300	7.04	34.20	1.62	26.81	125	0.49
139	8.41	34.04	2.17	156	400	6.44	34.26	1.26	26.94	113	0.61
184	8.10	34.16	1.68	143	500	5.88	34.29	0.94	27.03	104	0.72
237	7.50	34.16	1.90	134							
332	6.80	34.25	1.41	118							
442	6.20	34.27	1.15	109							
559	5.46	34.32	0.57	96							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

70.52

BLACK DOUGLAS; October 20, 1955; 1645 GCT; 36°08.5'N, 121°50'W; sounding, 380 fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 02°.

0	13.8	33.65	6.16	277	0	13.8	33.65	6.16	25.20	277	0.00
10	13.60	33.66	6.32	272	10	13.60	33.66	6.32	25.26	272	0.03
28	12.63	33.64	5.75	256	20	13.23	33.65	6.13	25.33	266	0.05
39	11.33	33.64	4.62	232	30	12.41	33.64	5.56	25.47	252	0.08
47	10.78	33.65	4.22	222	50	10.56	33.66	4.09	25.83	218	0.13
57	10.09	33.69	3.80	208	75	9.27	33.79	3.12	26.14	188	0.18
67	9.63	33.75	3.36	196	100	8.86	33.90	2.64	26.30	173	0.22
74	9.30	33.79	3.14	188	150	8.53	34.04	2.04	26.47	157	0.31
84	9.17	33.80	3.01	185	200	8.18	34.14	1.76	26.59	145	0.38
94	8.97	33.86	2.76	177	250	7.82	(34.19)	1.43	(26.69)	(136)	(0.46)
116	8.71	33.98	2.41	165	300	7.37	(34.22)	1.11	(26.78)	(128)	(0.52)
144	8.55	34.02	2.07	160	400	6.44	(34.27)	0.63	(26.94)	(112)	(0.65)
189	8.24	34.12	1.81	148	500	5.76	34.30	0.43	27.06	101	(0.76)
246	7.82	34.19	1.45	136							
343	6.93	34.40u	0.87	-							
455	6.04	34.29	0.45	106							
573	5.28	34.33	0.42	94							

70.55

BLACK DOUGLAS; October 20, 1955; 1342 GCT; 35°55'N, 121°59'W; sounding, 750 fm; wind, 270°, force 1; weather, fog; sea, moderate; wire angle, 00°.

0	14.2	33.68	5.79	283	0	14.2	33.68	5.79	25.15	283	0.00
10	13.82	33.68	6.04	275	10	13.82	33.68	6.04	25.23	275	0.03
29	11.64	33.66	5.32	236	20	12.99	33.67	5.80	25.39	260	0.05
38	10.27	33.66	4.48	213	30	11.46	33.66	5.24	25.68	232	0.08
47	10.08	33.66	4.40	210	50	10.02	33.66	4.34	25.92	209	0.12
56	9.87	33.71	3.77	203	75	9.22	33.80	2.96	26.16	186	0.17
66	9.25	33.74	3.36	191	100	8.85	33.82	2.72	26.24	178	0.22
75	9.22	33.80	2.96	186	150	8.13	34.00	2.40	26.49	155	0.30
84	9.01	33.82	2.76	181	200	7.84	34.12	(2.00)	26.62	142	0.38
93	8.93	33.82	2.97u	179	250	7.61	34.22	(1.73)	26.74	131	0.45
116	8.72	33.91	2.69	170	300	7.17	34.24	(1.30)	26.82	124	0.51
143	8.20	33.98	2.49	158	400	6.35	34.27	0.77	26.95	111	0.63
189	7.87	34.09	2.01	145	500	5.89	34.30	0.54	27.04	103	0.74
244	7.66	34.22	2.23u	132							
341	6.70	34.25	0.93	117							
453	6.12	34.29	0.66	107							
573	5.41	34.31	0.36	97							

70.60

BLACK DOUGLAS; October 20, 1955; 0843 GCT; 35°45'N, 122°26'W; sounding, 1900 fm; wind, calm; weather, fog; sea, moderate; wire angle, 00°.

0	14.4	33.64	5.97	290	0	14.4	33.64	5.97	25.07	290	0.00
10	14.20	33.68	5.97	283	10	14.20	33.68	5.97	25.15	283	0.03
24	14.02	33.65	6.29	282	20	14.06	33.66	6.25	25.15	282	0.06
48	10.52	33.66	3.88	217	30	13.95	33.65	6.27	25.18	280	0.08
57	9.74	33.71	3.40	200	50	10.20	33.67	3.67	25.90	211	0.13
67	9.43	33.77	3.25	192	75	9.25	33.78	3.07	26.14	188	0.18
76	9.25	33.78	3.01	188	100	8.75	33.90	2.60	26.32	172	0.23
95	8.82	33.88	2.60	174	150	8.20	34.03	2.30	26.50	154	0.31
118	8.43	33.95	2.57	163	200	7.94	34.14	1.60	26.63	142	0.39
145	8.23	34.02	2.33	155	250	7.74	34.21	1.08	26.71	134	0.46
192	7.97	34.13	1.84	143	300	7.45	34.24	0.90	26.78	128	0.52
256	7.73	34.21	1.07	134	400	6.60	34.28	0.62	26.93	114	0.65
353	7.02	34.26	0.74	120	500	5.86	34.32	0.45	27.05	102	0.76
472	6.02	34.31	0.46	104	600	5.41	34.34	0.42	27.13	95	0.86
644	5.23	34.35	0.40	92	700	5.00	34.37	0.40	27.20	88	0.96
854	4.34	34.42	0.41	77	800	4.60	34.40	0.40	27.26	82	1.05
1144	3.38	34.52	0.73	60	1000	3.72	34.48	0.62	27.43	66	1.21

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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BLACK DOUGLAS; October 20, 1955; 0226 GCT; 35°33'N, 123°04'W; sounding, 2000+ fm; wind, 140°, force 2; weather, fog; sea, moderate; wire angle, 02°.

70.70

0	14.7	33.65	6.33	295	0	14.7	33.65	6.33	25.02	295	0.00
10	14.07	33.64	6.12	283	10	14.07	33.64	6.12	25.14	283	0.03
24	13.77	33.66a)	5.95	276	20	13.83	33.65	5.97	25.20	278	0.06
48	13.39	33.79a)	5.85	259	30	13.66	33.70	5.90	25.28	270	0.08
58	9.42	33.82	2.85	187	50	13.08	33.80	5.71	25.47	252	0.14
67	9.26	33.86	2.57	182	75	9.24	33.86	2.52	26.21	181	0.19
76	9.24	33.87	2.52	181	100	9.13	33.91	2.46	26.27	176	0.24
95	9.13	33.91	2.48	176	150	8.82	34.02	2.21	26.41	163	0.32
117	9.00	33.92	2.43	173	200	8.60	34.09	1.85	26.49	155	0.40
144	8.84	33.98	2.26	167	250	8.32	34.20	1.56	26.62	143	0.48
190	8.62	34.09	1.89	157	300	8.01	34.27		26.72	134	0.55
254	8.27	34.21	1.52	142							
351	7.67	34.33	1.90r	124							

BLACK DOUGLAS; October 19, 1955; 2037 GCT; 35°13'N, 123°48'W; sounding, 2400 fm; wind, 180°, force 2; weather, cloudy; sea, rough; wire angle, 04°.

70.80

0	14.7	33.57	5.98	301	0	14.7	33.57	5.98	24.95	301	0.00
10	14.52	33.58	6.09	296	10	14.52	33.58	6.09	25.00	296	0.03
24	14.35	33.58	6.06	293	20	14.39	33.58	6.07	25.03	294	0.06
47	13.78	33.66	6.08	276	30	14.25	33.59	6.06	25.06	290	0.09
57	12.66	33.58	5.64	260	50	13.59	33.65	6.05	25.25	273	0.14
66	10.84	33.58	4.62	228	75	9.83	33.63	4.15	25.93	208	0.20
75	9.83	33.63	4.15	208	100	8.98	33.81	3.30	26.22	181	0.26
94	9.09	33.77	3.60	186	150	8.23	34.06	2.50	26.52	152	0.34
116	8.72	33.90	2.83	171	200	7.80	34.13	1.83	26.64	141	0.41
144	8.27	34.04	2.50	152	250	6.96	34.09	1.64	26.73	132	0.48
190	7.96	34.13	1.91	143	300	6.56	34.12	1.34	26.81	125	0.55
254	6.92	34.09	1.63	131	400	6.05	34.21	0.79	26.95	112	0.67
350	6.34	34.16	1.02	119	500	5.44	34.30	0.57	27.09	98	0.78
469	5.62	34.28	0.57	102	600	5.04	34.35	0.57	27.18	90	0.88
640	4.96	34.37	0.57	87	700	4.77	34.40	0.47	27.25	83	0.97
851	4.32	34.47	0.40	73	800	4.48	34.44	0.40	27.32	77	1.06
1142	3.45	34.54	0.82	60	1000	3.85	34.51	0.59	27.44	65	1.21

BLACK DOUGLAS; October 19, 1955; 1135 GCT; 34°53'N, 124°30'W; sounding, 2480 fm; wind, 130°, force 3; weather, missing; sea, rough; wire angle, 25°.

70.90

0	15.7	33.06	5.74	359	0	15.7	33.06	5.74	24.34	359	0.00
9	15.58	33.08	5.95	355	10	15.56	33.08	5.96	24.39	354	0.04
22	14.74	33.12	6.16	333	20	15.38	33.09	6.02	24.45	349	0.07
42	12.57	33.08	5.98	295	30	14.42	33.17	6.00	24.70	325	0.10
50	11.62	33.05	5.98	281	50	11.62	33.05	5.98	25.17	281	0.16
58	11.04	33.04	5.86	271	75	10.73	33.18	5.70	25.43	255	0.23
66	-	33.04	5.81	-	100	9.76	33.42	5.23	25.79	222	0.29
81	10.69	33.28	5.55	246	150	8.62	33.81	3.43	26.26	176	0.39
101	9.64	33.42	5.23	221	200	7.97	33.95	2.50	26.48	156	0.48
123	8.99	33.63	4.13	195	250	7.21	34.01	2.32	26.63	142	0.55
161	8.46	33.86	3.09	170	300	6.52	34.04	2.27	26.76	130	0.62
215	7.75	33.97	2.38	152	400	6.06	34.14	1.95	26.89	117	0.75
296	6.57	34.04	2.29	130	500	5.56	34.24	1.04	27.03	104	0.87
398	6.06	34.14	1.96	117	600	4.96	34.34	0.47	27.18	90	0.97
548	5.22	34.29	0.64	97	700	4.55	34.40	0.43	27.27	81	1.06
734	4.42	34.42	0.42	78	800	4.22	34.44	0.47	27.34	74	1.14
1004	3.59	34.51	0.66	63	1000	3.59	34.51	0.66	27.46	63	1.29

a) Salinity samples at 24 and 48 meters appear to have been reversed; they are assumed to be listed in correct order.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

73.50

BLACK DOUGLAS; October 20, 1955; 2335 GCT; 35°37'N, 121°16.5'W; sounding, 50+ fm; wind, 300°, force 3; weather, fog; sea, moderate; wire angle, 05°.

0	12.84	33.62	6.05	261	0	12.84	33.62	6.05	25.38	261	0.00
10	12.84	33.62	5.93	261	10	12.84	33.62	5.93	25.38	261	0.03
14	12.71	33.62	5.81	258	20	12.27	33.61	5.57	25.47	252	0.05
19	12.36	33.61	5.69	253	30	11.98	33.60	5.04	25.53	246	0.08
24	12.13	33.60	5.16	249	50	11.76	33.59	4.94	25.56	243	0.13
28	-	33.60	5.13	-	75	(10.10)	(33.73)	(4.01)	(25.96)	(205)	(0.18)
33	11.94	33.60	5.04	246							
42	11.92	33.59	5.25	246							
52	11.64	33.60	4.73	241							
60	10.78	33.66	4.38	221							
74	10.15	33.73	4.03	206							

73.60

BLACK DOUGLAS; October 21, 1955; 0557 GCT; 35°18'N, 121°58'W; sounding, 1316 fm; wind, 270°, force 2; weather, fog; sea, slight; wire angle, 00°.

0	14.2	33.68	6.35	283	0	14.2	33.68	6.35	25.14	283	0.00
10	13.96	33.68	6.33	278	10	13.96	33.68	6.33	25.20	278	0.03
29	13.42	33.69	6.05	267	20	13.71	33.69	6.23	25.26	272	0.06
39	12.71	33.60	5.77	260	30	13.39	33.69	6.02	25.32	266	0.08
49	11.08	33.70	4.27	222	50	10.94	33.71	4.16	25.81	220	0.13
58	10.18	33.76	3.68	202	75	9.16	33.84	2.83	26.20	182	0.18
68	9.50	33.78	3.12	192	100	8.67	33.92	2.56	26.34	169	0.23
77	9.09	33.85	2.83	180	150	8.27	34.05	2.20	26.50	154	0.31
87	8.98	33.86	2.84	178	200	8.06	34.16	1.68	26.63	142	0.38
95	8.76	33.90	2.63	171	250	7.59	34.24	1.37	26.76	129	0.45
118	8.55	33.95	2.49	165	300	7.19	34.29	0.97	26.86	120	0.52
145	8.29	34.02	2.20	156	400	6.57	34.31	0.63	26.96	111	0.63
191	8.14	34.14	1.78	145	500	6.05	34.31	0.55	27.02	104	0.74
246	7.62	34.23	1.41	131							
342	6.92	34.31	0.72	115							
455	6.24	34.31	0.59	107							
573	5.57	34.32	0.44	98							

77.50

BLACK DOUGLAS; October 21, 1955; 1640 GCT; 35°04.5'N, 120°52'W; sounding, 77 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 05°.

0	13.22	33.60	6.08	270	0	13.22	33.60	6.08	25.29	270	0.00
10	13.15	33.60	6.11	268	10	13.15	33.60	6.11	25.30	268	0.03
15	13.06	33.60	5.96	266	20	12.94	33.60	5.74	25.34	264	0.05
20	12.94	33.60	5.74	264	30	12.80	33.63	5.57	25.39	259	0.08
24	12.83	33.60	5.67	262	50	11.31	33.56	4.95	25.62	238	0.13
29	12.82	33.63	5.74	260	75	9.76	33.65	3.98	25.96	205	0.18
33	12.50	33.58	5.53	257	100	9.07	33.85	2.83	26.22	180	0.23
43	11.81	33.58	5.27	245							
54	11.01	33.55	4.83	233							
63	10.52	33.55	4.86	225							
76	9.69	33.66	3.89	204							
95	9.20	33.80	3.02	186							
118	8.74	33.96	2.25	166							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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BLACK DOUGLAS; October 21, 1955; 1251 GCT; 34°54'N, 121°13'W; sounding, 320 fm; wind, 320°, force 2; weather, fog; sea, smooth; wire angle, 07°.

77.55

0	14.3	33.51	6.69	297	0	14.3	33.51	6.69	24.99	297	0.00
10	13.93	33.53	6.33	288	10	13.93	33.53	6.33	25.09	288	0.03
29	12.83	33.54	5.93	266	20	13.47	33.54	6.13	25.19	279	0.06
38	11.29	33.50	5.10	242	30	12.78	33.54	5.88	25.33	265	0.08
47	10.45	33.44	4.96	232	50	10.22	33.43	4.99	25.71	229	0.13
56	9.77	33.45	5.01	220	75	9.41	33.69	3.86	26.05	197	0.19
65	9.50	33.53	4.50	210	100	8.98	33.86	3.05	26.25	178	0.24
74	9.43	33.68	3.93	198	150	8.55	33.93	2.44	26.37	166	0.32
84	9.12	33.79	3.32	185	200	8.00	34.10	1.78	26.59	146	0.40
93	9.04	33.85	3.15	180	250	7.58	34.17	1.40	26.71	134	0.47
111	8.86	33.86	2.89	176	300	7.27	34.22	1.03	26.79	127	0.54
133	8.79	33.88	2.80	173	400	6.81	34.26	0.68	26.88	118	0.67
151	8.50	33.94	2.43	165	500	(6.13)	(34.28)		(27.00)	(107)	(0.78)
187	8.09	34.08	1.89	148							
260	7.50	34.18	1.34	133							
357	7.04	34.25	0.77	121							
469	6.34	34.28	0.53	110							

BLACK DOUGLAS; October 21, 1955; 2257, 2318 GCT; 34°26.5'N, 120°32.5'W; sounding, 50 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 04°, missing.

80.51

0	14.23	33.58	5.87	291	0	14.23	33.58	5.87	25.06	291	0.00
10	14.15	33.60	5.81	288	10	14.15	33.60	5.81	25.10	288	0.03
15	13.57	33.59	5.70	276	20	13.00	33.58	5.03	25.32	266	0.06
19	13.06	33.58	5.09	268	30	12.07	33.58	4.57	25.49	250	0.08
24	12.73	33.58	4.84	261	50	10.20	33.62	3.62	25.86	214	0.13
29	12.18	33.58	4.60	252	75	9.75	33.73	3.30	26.02	200	0.18
33	11.77	33.58	4.51	244							
43	10.51	33.61	4.07	220							
53	10.14	33.63	3.59	213							
62	10.02	33.68	3.55	207							
77	9.71	33.73	3.15	199							

BLACK DOUGLAS; October 22, 1955; 0209, 0251 GCT; 34°19'N, 120°48'W; sounding, 420 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 28°, 30°.

80.55

0	14.9	33.52	5.84	308	0	14.9	33.52	5.84	24.88	308	0.00
9	15.04	33.51	5.84	313	10	15.06	33.51	5.84	24.83	313	0.03
26	14.36	33.50	5.82	299	20	15.10	33.50	5.84	24.81	314	0.06
38	12.23	33.26	5.93	276	30	13.44	33.40	5.83	25.09	288	0.09
47	11.20	33.16	6.22	266	50	10.99	33.17	5.95	25.38	261	0.15
54	10.80	33.21	5.59	255	75	10.04	33.28	5.13	25.63	237	0.21
62	10.60	33.24	5.56	249	100	9.20	33.51	4.16	25.94	207	0.27
69	10.35	33.25	5.35	244	150	8.22	33.95	2.77	26.44	160	0.36
81	9.71	33.35	4.90	227	200	7.71	34.02	2.51	26.57	148	0.44
89	9.40	33.44	4.34	215	250	7.27	34.05	2.47	26.65	140	0.51
108	9.08	33.54	4.10	203	300	6.76	34.11	1.82	26.77	128	0.58
131	8.53	33.87	2.00r	171	400	6.08	34.19	0.97	26.92	114	0.70
175	7.96	34.00	2.49	152	500	5.82	34.24	0.57	27.00	107	0.82
226	7.49	34.03	2.54	144							
317	6.58	34.13	1.60	124							
427	6.00	34.20	0.85	112							
545	5.70	34.35	0.37	97							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3} 10 cm/g	Z	T	S	O ₂	σ_t	δT_{-5}^{+3} 10 cm/g	ΔD
m	°C	‰	ml/L		m	°C	‰	ml/L	g/L		dyn. m

80.60

BLACK DOUGLAS; October 22, 1955; 0716 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 03°.

0	15.0	33.33	5.86	325	0	15.0	33.33	5.86	24.70	325	0.00
10	14.70	33.40	6.03	313	10	14.70	33.40	6.03	24.83	313	0.03
24	14.03	33.42	5.79	298	20	14.24	33.42	5.88	24.94	303	0.06
52	10.59	33.05	6.08	263	30	13.74	33.42	5.67	25.04	293	0.09
61	10.09	33.09	5.76	252	50	12.00	33.27	5.66	25.27	271	0.15
71	10.05	33.22	5.65	242	75	9.96	33.28	5.51	25.65	235	0.21
85	9.61	33.39	5.22	222	100	9.19	33.61	4.60	26.03	199	0.27
105	9.07	33.68	4.38	193	150	8.47	33.90	2.91	26.36	168	0.36
127	8.75	33.84	3.19	176	200	7.74	34.01	2.46	26.56	148	0.44
154	8.40	33.91	2.89	165	250	7.18	34.04	2.32	26.67	138	0.51
204	7.66	34.02	2.44	147	300	6.68	34.06	2.14	26.74	131	0.58
279	6.88	34.05	2.25	134	400	5.76	34.12	0.92	26.91	115	0.71
381	5.87	34.10	1.27	118	500	5.43	34.22	0.72	27.03	104	0.82
515	5.42	34.23	0.70	103	600	5.16	34.30	(0.64)	27.13	95	0.93
695	4.84	34.36	0.82u	87	700	4.83	34.36	(0.63)	27.21	86	1.02
919	4.14	34.49	0.62	70	800	4.54	34.42	(0.62)	27.29	79	1.11
1214	3.25	34.54	1.03	57	1000	3.87	34.51	0.73	27.43	66	1.27

80.70

BLACK DOUGLAS; October 22, 1955; 1437 GCT; 33°53'N, 121°44'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 27°.

0	15.2	33.48	5.89	318	0	15.2	33.48	5.89	24.78	318	0.00
8	15.14	33.47	6.17	317	10	15.15	33.47	6.16	24.78	317	0.03
26	15.20	33.58	6.03	310	20	15.16	33.53	6.14	24.82	313	0.06
47	11.62	33.49	5.59	248	30	15.11	33.58	6.00	24.87	309	0.09
60	10.81	33.49	5.04	234	50	11.38	33.49	5.44	25.55	244	0.15
68	10.22	33.58	4.73	218	75	10.03	33.65	4.35	25.91	210	0.21
81	9.84	33.73	3.97	200	100	9.18	33.81	3.33	26.18	185	0.26
103	9.10	33.82	3.28	182	150	8.31	33.98	2.29	26.45	159	0.34
133	8.48	33.93	-	165	200	7.65	34.02	2.31	26.58	147	0.42
154	8.24	34.01	2.28	156	250	7.23	34.06	1.90	26.66	138	0.49
205	7.58	34.02	2.31	146	300	6.78	34.12	1.53	26.78	128	0.56
279	7.02	34.11	1.66	131	400	5.47	34.14	1.05	26.96	110	0.68
378	5.66	34.14	1.18	112	500	5.16	34.24	0.82	27.08	99	0.79
514	5.10	34.27	0.77	96	600	4.98	34.34	0.67	27.18	90	0.89
699	4.68	34.43	0.52	80	700	4.68	34.43	0.52	27.28	80	0.98
924	3.98	34.51	0.53	66	800	4.40	34.48	0.53	27.35	73	1.07
1231	3.22	34.57	0.99	55	1000	3.80	34.52	0.62	27.45	64	1.22

80.80

BLACK DOUGLAS; October 22, 1955; 2230 GCT; 33°28'N, 122°31'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 04°.

0	16.0	33.12	6.01	361	0	16.0	33.12	6.01	24.32	361	0.00
10	16.01	33.12	5.88	361	10	16.01	33.12	5.88	24.32	361	0.04
24	14.52	33.18	6.02	326	20	16.01	33.12	5.88	24.32	361	0.07
53	11.75	33.12	6.01	278	30	14.20	33.19	6.05	24.77	318	0.11
62	11.09	33.13	5.87	266	50	12.14	33.14	6.02	25.14	283	0.17
72	10.35	33.08	5.79	257	75	10.35	33.11	5.72	25.44	255	0.23
85	10.44	33.18	5.57	251	100	10.00	33.37	5.02	25.70	230	0.30
104	9.88	33.40	-	226	150	8.72	33.80	3.68	26.24	178	0.40
127	9.16	33.61	4.08	199	200	8.08	33.96	3.16	26.47	157	0.48
154	8.65	33.81	3.64	176	250	7.29	33.99	2.74	26.61	144	0.56
204	8.02	33.97	3.13	156	300	6.73	34.07	1.80	26.74	131	0.63
276	6.91	34.01	2.43	137	400	6.39	34.23	0.80	26.91	115	0.76
377	6.52	34.20	0.89	118	500	5.60	34.29	0.58	27.06	101	0.87
509	5.56	34.29	0.58	100	600	5.01	34.34	(0.58)	27.17	91	0.97
688	4.59	34.38	0.65u	83	700	4.53	34.38	(0.59)	27.26	82	1.06
999	3.89	34.49	0.63	67	800	4.20	34.44	(0.60)	27.34	74	1.15
1214	3.28	34.54	1.22	58	1000	3.87	34.49	0.64	27.42	67	1.30

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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BLACK DOUGLAS; October 23, 1955; 0549 GCT; 33°09'N, 123°12'W; sounding, 2400 fm; wind, 330°, force 3; weather, cloudy; sea, rough; wire angle, 18°.

80.90

0	16.3	33.17	5.55	364	0	16.3	33.17	5.55	24.29	364	0.00
9	16.33	33.15	5.65	366	10	16.33	33.14	5.65	24.27	366	0.04
24	15.93	33.12	5.45	360	20	16.13	33.13	5.55	24.30	363	0.07
50	14.10	33.12	5.91	322	30	15.57	33.12	5.53	24.42	352	0.11
59	13.12	33.04	5.96	309	50	14.10	33.12	5.91	24.74	322	0.18
69	12.38	33.00	5.86	298	75	11.95	33.03	5.80	25.09	288	0.25
82	11.35	33.12	5.73	271	100	10.54	33.22	5.36	25.49	250	0.32
100	10.54	33.22	5.36	250	150	8.86	33.68	3.72	26.13	190	0.43
122	9.67	33.45	4.60	219	200	8.14	33.96	3.23	26.46	158	0.52
146	8.94	33.66	3.77	192	250	7.42	33.99	2.87	26.58	146	0.60
195	8.20	33.95	3.28	160	300	6.92	34.03	2.27	26.69	136	0.67
263	7.28	33.99	2.79	144	400	6.15	34.16	1.01	26.89	117	0.80
360	6.40	34.12	1.22	123	500	5.52	34.24	0.65	27.03	104	0.92
487	5.58	34.23	0.68	105	600	5.05	34.31	0.43	27.14	93	1.02
661	4.82	34.36	0.39	87	700	4.73	34.37	0.40	27.23	85	1.12
878	4.12	34.45	0.52	73	800	4.39	34.42	0.45	27.30	78	1.20
1166	3.40	34.55	0.85	58	1000	3.75	34.51	0.70	27.44	65	1.36

BLACK DOUGLAS; October 24, 1955; 1622 GCT; 34°14'N, 119°22'W; sounding, 12 fm; wind, 360°, force 1; weather, fog; sea, moderate; wire angle, 00°.

83.40

0	15.65	33.58	5.59	320	0	15.65	33.58	5.59	24.76	320	0.00
5	14.82	33.58	6.15	302	10	14.38	33.60	6.22	25.05	292	0.03
10	14.38	33.60	6.22	292							
15	-	33.64	6.22	-							

BLACK DOUGLAS; October 24, 1955; 1405 GCT; 34°08'N, 119°34'W; sounding, 135 fm; wind, 360°, force 1; weather, fog; sea, moderate; wire angle, 05°.

83.43

0	15.53	33.63	6.22	314	0	15.53	33.63	6.22	24.82	314	0.00
10	15.49	33.60	6.53	315	10	15.49	33.60	6.53	24.81	315	0.03
14	15.26	33.62	6.19	309	20	15.01	33.60	5.77	24.91	305	0.06
19	15.07	33.60	5.79	306	30	13.88	33.57	5.63	25.13	284	0.09
23	14.52	33.58	5.76	297	50	11.37	33.55	4.55	25.60	239	0.14
28	14.07	33.57	5.73	288	75	9.58	33.68	3.47	26.01	200	0.20
33	13.53	33.58	5.38	277	100	8.97	33.90	3.05	26.29	174	0.25
43	12.20	33.53	4.76	256	150	8.72	34.02	2.32	26.43	161	0.33
52	11.07	33.57	4.44	233	200	(8.47)	(34.14)	(1.70)	(26.54)	(151)	(0.41)
61	10.50	33.60	3.91	221							
70	9.80	33.68	3.60	204							
88	9.12	33.68	3.89u	193							
102	8.96	33.91	3.04	173							
114	8.92	33.94	2.97	171							
146	8.72	34.01	2.34	163							
191	8.54	34.13	1.95	151							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

83.51

BLACK DOUGLAS; October 24, 1955; 0725 GCT; 33°52'N, 120°08.5'W; sounding, 125 fm; wind, 360°, force 1; weather, fog; sea, rough; wire angle, 04°.

0	14.26	33.60	6.01	290	0	14.26	33.60	6.01	25.08	290	0.00
10	14.21	33.59	6.03	290	10	14.21	33.59	6.03	25.08	290	0.03
14	13.91	33.55	5.73	286	20	13.34	33.57	5.41	25.24	274	0.06
19	13.36	33.57	5.42	274	30	12.38	33.53	5.10	25.39	259	0.08
24	12.78	33.57	5.23	263	50	10.54	33.57	4.33	25.76	224	0.13
28	12.48	33.53	5.15	261	75	9.60	33.70	3.50	26.03	199	0.18
34	11.80	33.55	4.85	247	100	9.04	33.88	2.84	26.25	178	0.23
43	10.67	33.57	4.38	226	150	8.50	34.06	2.21	26.49	156	0.32
52	10.46	33.57	4.29	223	200	(8.06)	(34.16)	(1.30)	(26.63)	(142)	(0.39)
62	9.95	33.68	3.71	206							
72	9.68	33.69	3.56	201							
89	9.14	34.00u	3.03								
103	9.02	33.90	2.83	175							
131	8.66	33.99	2.36	163							
159	8.44	34.09	2.17	153							
192	8.16	34.15	1.63	144							

83.60

BLACK DOUGLAS; October 24, 1955; 0125 GCT; 33°33'N, 120°45'W; sounding, 900 fm; wind, 300°, force 3; weather, cloudy; sea, rough; wire angle, 18°.

0	15.2	33.55	6.03	312	0	15.2	33.55	6.03	24.83	312	0.00
9	15.32	33.57	6.01	314	10	15.32	33.57	6.01	24.82	314	0.03
28	13.11	33.47	6.08	277	20	14.34	33.52	6.06	25.00	297	0.06
37	11.98	33.44	5.27	258	30	12.82	33.46	5.96	25.26	272	0.09
46	11.28	33.39	5.17	250	50	11.03	33.38	5.13	25.53	246	0.14
55	10.78	33.40	5.05	240	75	9.74	33.58	4.17	25.91	210	0.20
64	10.83	33.57	4.49	229	100	9.27	33.75	3.55	26.12	191	0.25
73	9.79	33.57	4.18	212	150	8.30	33.99	2.35	26.46	158	0.34
82	9.58	33.64	4.16	203	200	7.86	34.08	2.03	26.59	145	0.42
91	9.48	33.71	3.72	196	250	7.36	34.15	1.40	26.73	133	0.48
113	8.92	33.80	3.27	180	300	7.18	34.32	0.87	26.88	118	0.55
140	8.42	33.95	2.46	163	400	6.66	34.31	0.60	26.94	112	0.67
184	8.02	34.06	2.13	149	500	5.98	34.33	0.47	27.05	102	0.78
238	7.42	34.14	1.63	135							
332	7.16	34.33	0.85	117							
440	6.36	34.30	0.51	109							
555	5.66	34.37	0.43	95							

87.35

BLACK DOUGLAS; October 24, 1955; 2310, 2328 GCT; 33°50'N, 118°37.5'W; sounding, 260 fm; wind, 240°, force 2; weather, cloudy; sea, slight; wire angle, 00°, missing.

0	16.4	33.68	5.83	329	0	16.4	33.68	5.83	24.66	329	0.00
10	15.14	33.64	6.00	305	10	15.14	33.64	6.00	24.91	305	0.03
15	14.45	33.58	5.86	296	20	13.64	33.57	5.67	25.18	280	0.06
20	13.64	33.57	5.67	280	30	12.83	33.53	5.54	25.31	267	0.09
24	13.30	33.55	5.19u	275	50	10.90	33.53	4.43	25.67	233	0.14
29	12.88	33.53	5.57	268	75	9.61	33.67	3.53	25.99	202	0.19
38	12.16	33.53	5.02	255	100	9.16	33.83	3.07	26.20	182	0.24
48	11.11	33.53	4.47	236	150	8.82	34.01	2.72	26.39	165	0.33
					200	8.53	34.14	1.90	26.54	150	0.41
58	10.25	33.56	4.36	220	250	8.22	34.20	1.44	26.63	142	0.48
72	9.66	33.66	3.61	203	300	7.95	34.27	1.07	26.73	132	0.55
90	9.32	33.77	3.27	189							
113	8.95	33.91	2.87	173							
150	8.82	34.01	2.72	165							
188	8.60	34.11	2.10	154							
233	8.32	34.18	1.59	144							
303	7.91	34.28	1.05	131							
379	7.18	34.30	0.68	119							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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BLACK DOUGLAS; October 25, 1955; 0258 GCT; 33°40'N, 118°58.5'W; sounding, 460 fm; wind, 240°, force 1; weather, missing; sea, moderate; wire angle, 03°.

87.40

0	17.1	33.68	5.71	344	0	17.1	33.68	5.71	24.50	344	0.00
10	16.98	33.66	5.65	342	10	16.98	33.66	5.65	24.52	342	0.03
29	15.25	33.51	6.00	317	20	16.93	33.66	5.63	24.53	342	0.07
38	13.62	33.46	5.81	287	30	15.00	33.50	5.99	24.83	312	0.10
48	13.12	33.49	5.50	275	50	13.07	33.49	5.48	25.23	274	0.16
58	11.78	33.51	5.02	249	75	10.81	33.51	4.66	25.67	233	0.22
67	11.58	33.54	4.87	243	100	9.76	33.66	3.83	25.97	204	0.28
76	10.76	33.51	4.65	231	150	8.87	33.99	2.46	26.37	166	0.37
85	10.33	33.53	4.36	223	200	8.51	34.14	1.94	26.55	150	0.45
94	9.93	33.62	4.00	210	250	8.14	34.21	1.43	26.65	140	0.53
118	9.28	33.80	3.31	187	300	7.77	34.26	1.03	26.75	130	0.60
145	8.91	33.97	2.59	168	400	7.04	34.34	0.62	26.92	114	0.72
191	8.56	34.13	2.01	151	500	6.21	34.38	0.50	27.06	101	0.83
246	8.17	34.20	1.46	140							
343	7.48	34.31	0.82	123							
455	6.58	34.37	0.52	106							
573	5.72	34.40	0.46	94							

BLACK DOUGLAS; October 25, 1955; 0652, 0717 GCT; 33°30'N, 119°19'W; sounding, 930 fm; wind, 160°, force 1; weather, cloudy; sea, moderate; wire angle, 02°, missing.

87.45

0	15.9	33.69	6.19	317	0	15.9	33.69	6.19	24.78	317	0.00
10	15.64	33.67	6.33	313	10	15.64	33.67	6.33	24.83	313	0.03
29	13.40	33.58	5.89	274	20	14.92	33.63	6.27	24.96	301	0.06
38	12.45	33.55	5.17	259	30	13.33	33.58	5.84	25.25	273	0.09
47	11.00	33.59	4.66	230	50	10.87	33.60	4.53	25.73	227	0.14
57	10.62	33.62	4.40	221	75	9.70	33.71	3.79	26.02	200	0.19
66	10.05	33.64	4.26	210	100	9.22	33.84	3.37	26.20	182	0.24
75	9.70	33.71	3.79	200	150	8.52	34.06	2.57	26.48	156	0.33
84	9.40	33.75	3.53	192	200	8.13	34.15	2.05	26.61	144	0.40
94	9.30	33.82	3.63u	186	250	8.04	34.24	1.84	26.69	136	0.47
117	8.82	33.94	3.08	169	300	7.65	34.30	1.40	26.79	126	0.54
144	8.57	34.04	2.61	158	400	6.95	34.34	0.98	26.93	113	0.66
189	8.16	34.13	2.10	146	500	6.22	34.37	0.69	27.05	102	0.78
235	8.08	34.22	1.91	138							
331	7.42	34.32	1.21	121							
441	6.63	34.35	0.88	109							
558	5.80	34.40	0.53	95							

BLACK DOUGLAS; October 25, 1955; 1040 GCT; 33°20'N, 119°39.5'W; sounding, 35 fm; wind, 200°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

87.50

0	16.69	33.67	5.67	336	0	16.69	33.67	5.67	24.59	336	0.00
10	16.62	33.67	5.50	334	10	16.62	33.67	5.50	24.61	334	0.03
14	16.27	33.68	5.68	326	20	15.95	33.63	5.64	24.73	322	0.07
19	16.02	33.64	5.64	323	30	15.12	33.58	5.82	24.87	309	0.10
24	15.18	33.53	5.75	313							
29	15.13	33.58	5.82	309							
34	15.08	33.55	5.68	310							
38	14.42	33.53	5.65	298							
48	13.74	33.51	5.52	286							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

87.60 BLACK DOUGLAS; October 25, 1955; 1718 GCT; 33°00'N, 120°21.5'W; sounding, 450 fm; wind, 190°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

0	16.6	33.69	5.83	333	0	16.6	33.69	5.83	24.62	333	0.00
10	16.49	33.69	5.87	330	10	16.49	33.69	5.87	24.65	330	0.03
29	14.33	33.49	6.07	299	20	15.43	33.59	6.00	24.82	314	0.06
38	13.01	33.45	5.64	276	30	14.25	33.48	6.04	24.99	297	0.10
48	11.78	33.41	5.28	257	50	11.55	33.42	5.18	25.47	252	0.15
57	10.91	33.46	4.96	238	75	9.99	33.53	4.72	25.83	218	0.21
67	-	33.45	5.00	-	100	9.34	33.70	3.88	26.07	194	0.26
75	9.99	33.53	4.72	218	150	8.62	33.89	3.15	26.33	170	0.35
84	9.73	33.65	4.31	205	200	8.09	34.06	2.32	26.54	151	0.43
94	9.47	33.68	4.10	199	250	7.22	34.10	2.11	26.70	135	0.51
117	8.98	33.78	3.49	184	300	6.67	34.12	1.99	26.79	127	0.58
144	8.67	33.87	3.25	172	400	6.00	34.18	1.68	26.93	113	0.70
190	8.20	34.05	2.38	152	500	5.58	34.26	1.30	27.05	102	0.81
245	7.32	34.09	2.14	137							
343	6.36	34.14	1.88	121							
455	5.76	34.23	1.48	107							
573	5.31	34.34	1.05	93							

90.28 BLACK DOUGLAS; October 28, 1955; 0850 GCT; 33°28.5'N, 117°46.5'W; sounding, 200 fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 02°.

0	16.1	33.58	6.04	330	0	16.1	33.58	6.04	24.65	330	0.00
10	15.96	33.57	6.15	327	10	15.96	33.57	6.15	24.68	327	0.03
15	14.26	33.48	6.01	299	20	13.30	33.47	5.53	25.17	280	0.06
19	13.46	33.47	5.60	284	30	12.29	33.45	5.12	25.35	263	0.09
24	12.82	33.46	5.31	274	50	10.56	33.48	4.31	25.69	231	0.14
29	12.38	33.45	5.18	265	75	9.58	33.64	3.93	25.98	203	0.19
33	12.08	33.47	4.69	258	100	9.00	33.76	3.07	26.17	185	0.24
43	10.96	33.48	4.25	237	150	8.87	33.99	2.44	26.36	167	0.33
53	10.39	33.48	4.35	228	200	8.73	34.14	2.14	26.51	153	0.41
62	9.89	33.53	4.22	216	250	8.37	34.19	1.51	26.60	144	0.49
76	9.57	33.65	-	202							
95	9.02	33.74	3.22	188							
119	8.92	33.86	2.72	177							
156	8.87	34.01	2.31	165							
193	8.74	34.13	2.17	154							
231	8.52	34.17	1.65	148							
287	8.04	34.23	1.33	137							

90.30 BLACK DOUGLAS; October 28, 1955; 0615 GCT; 33°24.5'N, 117°55'W; sounding, 340 fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	16.8	33.63	5.97	341	0	16.8	33.63	5.97	24.53	341	0.00
10	16.72	33.63	5.97	339	10	16.72	33.63	5.97	24.55	339	0.03
29	12.93	33.48	5.50	273	20	14.47	33.55	5.80	24.99	298	0.07
38	12.06	33.48	4.95	257	30	12.83	33.48	5.43	25.27	271	0.09
48	11.00	33.49	4.25	237	50	10.78	33.52	4.18	25.68	232	0.14
57	10.41	33.57	4.06	222	75	9.67	33.62	3.69	25.94	207	0.20
67	10.0	33.57	3.81	-	100	9.08	33.80	3.21	26.18	184	0.25
76	9.63	33.63	3.67	206	150	8.79	33.99	2.19	26.38	165	0.34
85	9.43	33.68	3.56	198	200	8.60	34.15	1.70	26.53	151	0.42
94	9.23	33.72	3.36	192	250	8.36	34.21	1.52	26.62	142	0.49
112	8.96	33.86	3.05	177	300	7.87	34.25	1.26	26.72	133	0.56
135	8.87	33.92	2.65	172	400	6.84	34.31	0.63	26.92	114	0.69
154	8.78	34.01	2.83u	163	500	(6.13)	(34.35)		(27.05)	(102)	(0.80)
190	8.63	34.13	1.71	153							
264	8.22	34.22	1.45	140							
361	7.19	34.29	0.78	120							
475	6.28	34.34	0.47	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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BLACK DOUGLAS; October 28, 1955; 0141 GCT; 33°11'N, 118°23'W; sounding, 650 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 14°.

90.37

0	16.8	33.65	5.73	340	0	16.8	33.65	5.73	24.55	340	0.00
9	16.52	33.65	5.85	334	10	16.50	33.65	5.84	24.61	334	0.03
28	14.46	33.52	5.68	299	20	15.75	33.61	5.80	24.76	320	0.07
36	12.81	33.52	5.31	268	30	14.01	33.52	5.60	25.06	291	0.10
45	11.83	33.46	4.91	254	50	11.42	33.47	4.73	25.53	246	0.15
54	11.13	33.49	4.62	240	75	9.98	33.62	3.92	25.90	211	0.21
63	10.66	33.51	4.33	230	100	9.44	33.68	3.20	26.04	198	0.26
72	10.16	33.58	4.03	217	150	8.76	34.03	2.27	26.42	162	0.35
80	9.85	33.63	3.80	208	200	8.65	34.14	2.01	26.52	152	0.43
89	9.71	33.64	3.41	205	250	8.40	34.23	1.42	26.63	142	0.50
111	9.18	33.78	2.96	187	300	7.90	34.27	1.05	26.73	132	0.57
137	8.82	33.98	2.43	166	400	7.07	34.32	0.63	26.89	117	0.70
181	8.68	34.09	2.10	156	500	6.38	34.34	0.41	27.01	106	0.82
234	8.50	34.21	1.55	145							
327	7.62	34.28	0.90	127							
437	6.82	34.33	0.51	113							
552	5.98	34.35	0.36	100							

BLACK DOUGLAS; October 27, 1955; 2005 GCT; 32°54.5'N, 118°56'W; sounding, 960 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 03°.

90.45

0	16.6	33.69	5.78	333	0	16.6	33.69	5.78	24.62	333	0.00
9	16.46	33.68	6.04	330	10	16.43	33.68	6.03	24.66	329	0.03
23	15.99	33.65	5.70	322	20	16.12	33.66	5.80	24.71	324	0.07
48	12.36	33.47	5.56	263	30	14.80	33.58	5.66	24.94	302	0.10
57	11.56	33.49	4.98	247	50	12.12	33.47	5.42	25.40	259	0.15
67	10.93	33.53	4.51	233	75	10.57	33.57	4.25	25.76	224	0.21
76	10.55	33.58	4.21	223	100	8.98	33.73	3.30	26.14	188	0.27
95	8.98	33.67	3.57	192	150	8.63	34.03	2.30	26.44	160	0.35
118	9.17	33.83	2.49	183	200	8.26	34.16	2.14	26.60	145	0.43
146	8.66	34.02	2.31	161	250	7.82	34.24	1.26	26.72	133	0.50
192	8.31	34.15	2.17	146	300	7.38	34.29	0.90	26.83	123	0.57
257	7.75	34.25	1.20	131	400	6.74	34.33	0.61	26.95	111	0.69
354	7.02	34.32	0.71	116	500	6.18	34.34	0.49	27.03	104	0.80
486	6.24	34.34	0.51	105	600	5.64	34.37	0.40	27.12	95	0.91
656	5.35	34.40	0.39	89	700	5.05	34.42	0.39	27.23	85	1.00
865	4.35	34.47	0.44	73	800	4.62	34.45	0.40	27.30	78	1.09
1153	3.84	34.52	0.69	65	1000	3.97	34.51	0.59	27.42	67	1.25

BLACK DOUGLAS; October 27, 1955; 1250 GCT; 32°35'N, 119°37'W; sounding, 625 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 17°.

90.55

0	15.5	33.57	5.78	317	0	15.5	33.57	5.78	24.78	317	0.00
9	15.48	33.57	5.76	317	10	15.48	33.57	5.76	24.79	317	0.03
27	15.46	33.55	5.76	318	20	15.47	33.56	5.76	24.78	318	0.06
40	14.44	33.49	5.48	302	30	15.46	33.54	5.76	24.78	318	0.10
49	11.86	33.40	5.12	259	50	11.73	33.40	5.09	25.42	257	0.14
58	11.12	33.41	4.91	246	75	10.19	33.54	4.27	25.81	220	0.21
67	10.54	33.49	4.51	230	100	9.78	33.64	3.77	25.94	207	0.27
76	10.16	33.55	4.24	219	150	8.40	34.02	2.28	26.46	158	0.36
89	9.83	33.62	3.91	209	200	8.13	34.11	1.78	26.58	146	0.43
98	9.81	33.64	3.88	207	250	7.93	34.21	1.35	26.68	137	0.51
120	9.02	33.80	3.12	183	300	7.16	34.19	1.24	26.78	127	0.58
146	8.46	33.98	2.39	161	400	6.04	34.23	0.63	26.96	110	0.70
195	8.14	34.11	1.90	147	500	5.87	34.32	0.48	27.05	102	0.81
253	7.88	34.21	1.33	136	600	5.36	34.39	0.39	27.17	90	0.91
357	6.20	34.16	1.15	118							
476	5.95	34.30	0.49	104							
604	5.32	34.39	0.39	90							

SIO CCOFI 5510	OBSERVED					INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O ₂ ml/L	δT $10^{-5} \text{ cm}^3/\text{g}$	Z m	T °C	S ‰	O ₂ ml/L	σ_t g/L	δT $10^{-5} \text{ cm}^3/\text{g}$	ΔD dyn. m
90.60	BLACK DOUGLAS; October 27, 1955; 0902 GCT; 32°25'N, 119°57.5'W; sounding, 500 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 03°.											
	0	15.9	33.60	5.96	324	0	15.9	33.60	5.96	24.71	324	0.00
	10	15.96	33.61	6.05	324	10	15.96	33.61	6.05	24.71	324	0.03
	29	15.98	33.60	5.83	325	20	15.97	33.60	5.90	24.70	325	0.06
	43	14.93	33.53	5.63	309	30	15.98	33.60	5.80	24.70	325	0.10
	53	13.14	33.46	5.30	278	50	13.72	33.48	5.40	25.09	288	0.16
	70p	11.24	33.49	5.06	242	75	10.88	33.51	4.80	25.66	234	0.22
	95p	9.64	33.60	3.60	207	100	9.47	33.63	3.51	25.99	202	0.28
	142p	8.43	33.88	2.98	168	150	8.33	33.91	2.87	26.39	164	0.37
	198p	7.74	34.08	2.14	143	200	7.72	(34.09)	2.14	(26.62)	(142)	(0.45)
	298p	6.76	34.31r	1.63	-	250	7.22	(34.13)	1.89	(26.73)	(132)	(0.52)
	413p	5.94	34.22	0.77	110	300	6.73	(34.17)	1.62	(26.82)	(123)	(0.59)
	535p	5.22	34.30	0.57	96	400	6.03	(34.22)	0.82	(26.95)	(111)	(0.71)
						500	5.44	34.27	0.62	27.07	100	(0.82)
90.70	BLACK DOUGLAS; October 27, 1955; 0147 GCT; 32°06'N, 120°30'W; sounding, 2420 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°.											
	0	16.5	33.64	5.67	334	0	16.5	33.64	5.67	24.61	334	0.00
	9	16.44	33.63	5.77	334	10	16.44	33.63	5.77	24.61	334	0.03
	22	16.38	33.65	5.82	330	20	16.39	33.65	5.82	24.64	331	0.07
	44	13.21	33.40	5.71	284	30	16.33	33.65	5.82	24.66	329	0.10
	52	12.15	33.42	5.26	263	50	12.29	33.42	5.29	25.33	266	0.16
	61	11.65	33.42	5.24	254	75	10.21	33.54	4.57	25.81	220	0.22
	70	10.53	33.48	4.82	230	100	9.23	33.75	3.60	26.12	190	0.27
	88	9.60	33.67	4.02	202	150	8.19	34.04	2.49	26.51	153	0.36
	110	8.95	33.82	3.27	180	200	7.83	34.10	1.93	26.62	143	0.43
	136	8.32	34.01	2.71	157	250	7.39	34.20	1.23	26.75	130	0.50
	178	8.02	34.07	2.22	148	300	7.28	34.23	1.05	26.80	126	0.57
	239	7.46	34.18	1.38	132	400	6.67	34.35	(0.73)	26.98	109	0.69
	329	7.21	34.26	0.99	123	500	6.14	34.36	(0.60)	27.05	102	0.80
	442	6.34	34.36	-	104	600	6.00	34.36	(0.58)	27.07	100	0.90
	603	5.94	34.36	0.58	99	700	5.65	34.37	0.58	27.12	96	1.01
	801	5.19	34.41	0.58	87	800	5.20	34.40	0.58	27.21	87	1.11
	1081	3.99	34.50	-	67	1000	4.36	34.48		27.36	73	1.28
90.80	BLACK DOUGLAS; October 26, 1955; 1805, 1825 GCT; 31°41'N, 121°22'W; sounding, 2000+ fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 15°, missing.											
	0	15.8	33.56	6.11	325	0	15.8	33.56	6.11	24.70	325	0.00
	9	15.80	33.55	6.15	326	10	15.80	33.55	6.16	24.70	326	0.03
	23	15.82	33.57	6.30	324	20	15.81	33.56	6.27	24.70	325	0.06
	47	14.26	33.53	5.54	295	30	15.80	33.57	6.29	24.71	324	0.10
	56	12.98	33.46	5.48	275	50	13.85	33.51	5.49	25.09	288	0.16
						75	11.24	33.42	5.40	25.52	247	0.23
	65	11.90	33.40	5.58	260	100	9.97	33.60	4.28	25.89	212	0.28
	74	11.26	33.42	5.42	247	150	8.61	33.84	3.04	26.29	174	0.38
	91	10.33	33.56	4.51	221	200	7.86	34.03	2.52	26.56	149	0.46
	113	9.49	33.64	3.97	202	250	7.42	34.09	2.02	26.66	139	0.54
	139	8.82	33.79	3.16	181	300	6.84	34.12	1.70	26.77	128	0.61
	182	8.08	33.98	2.77	156	400	5.97	34.20	0.92	26.95	111	0.73
	242	7.49	34.08	2.09	140	500	5.56	34.27	0.57	27.06	101	0.84
	333	6.47	34.14	1.41	122	600	5.17	34.35	0.43	27.16	91	0.94
	450	5.72	34.24	0.73	106	700	4.82	34.40	0.55	27.24	84	1.04
	613	5.12	34.35	0.43	91	800	4.47	34.45	0.71	27.32	76	1.12
	815	4.41	34.46	0.74	75	1000	3.79	34.52	1.04	27.45	64	1.28
	1096	3.60	34.54	1.14	61							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

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BLACK DOUGLAS; October 26, 1955; 1130 GCT; 31°25'N, 121°57'W; sounding, 2000 fm; wind, 240°, force 1; weather, missing; sea, moderate; wire angle, 03°.

90.90

0	16.4	33.38	5.79	352	0	16.4	33.38	5.79	24.42	352	0.00
10	16.36	33.35	5.82	352	10	16.36	33.35	5.82	24.42	352	0.04
24	15.22	33.41	5.98	323	20	15.59	33.40	5.96	24.63	332	0.07
48	13.82	33.30	5.81	303	30	14.90	33.38	5.94	24.78	318	0.10
57	12.98	33.34	5.71	284	50	13.77	33.30	5.80	24.95	302	0.16
66	12.37	33.36	5.60	271	75	12.23	33.34	5.53	25.28	270	0.24
75	12.23	33.34	5.53	270	100	10.66	33.40	4.99	25.61	238	0.30
94	11.04	33.38	5.12	246	150	9.04	33.77	3.15	26.17	185	0.41
117	9.74	33.49	4.44	217	200	8.19	34.02	2.52	26.50	154	0.49
144	9.16	33.71	3.25	191	250	7.70	34.11	1.89	26.65	140	0.57
190	8.33	33.99	2.64	159	300	7.32	34.18	1.33	26.75	130	0.64
255	7.67	34.12	1.84	139	400	6.63	34.31	0.67	26.94	112	0.76
352	7.00	34.27	0.93	119	500	6.04	34.35	0.42	27.06	101	0.88
472	6.19	34.34	0.42	104	600	5.43	34.37	0.43	27.15	93	0.98
644	5.16	34.37	0.46	90	700	4.83	34.40	0.46	27.24	84	1.07
853	4.38	34.46	0.46	74	800	4.46	34.44	0.46	27.32	77	1.16
1143	3.61	34.51	0.85	63	1000	3.97	34.49	0.60	27.41	68	1.32

BLACK DOUGLAS; October 28, 1955; 1902 GCT; 32°56'N, 117°19'W; sounding, 60 fm; wind, 250°, force 1; weather, clear; sea, moderate; wire angle, 02°.

93.27

0	16.95	33.71	5.13	339	0	16.95	33.71	5.13	24.56	339	0.00
10	16.59	33.67	6.74u	334	10	16.59	33.67	5.50	24.61	334	0.03
14	15.89	33.61	6.11	323	20	15.04	33.58	6.02	24.88	308	0.07
19	15.16	33.58	6.04	310	30	12.81	33.46	6.22	25.27	271	0.10
25	13.94	33.46	5.93	294	50	10.83	33.51	4.58	25.67	233	0.14
28	13.24	33.48	6.23	279	75	9.75	33.64	3.87	25.95	206	0.20
33	12.20	33.44	6.03	262							
43	11.26	33.46	4.66	245							
53	10.70	33.53	4.55	230							
62	10.22	33.57	4.10	219							
77	9.68	33.65	3.85	204							

BLACK DOUGLAS; October 28, 1955; 2103 GCT; 32°50'N, 117°31.5'W; sounding, 350 fm; wind, 270°, force 1; weather, clear; sea, moderate; wire angle, missing.

93.30

0	17.2	33.66	5.57	347	0	17.2	33.66	5.57	24.47	347	0.00
10	17.15	33.64	5.64	348	10	17.15	33.64	5.64	24.46	348	0.04
29	14.47	33.49	6.18	302	20	17.14	33.64	5.66	24.46	348	0.07
38	12.98	33.44	5.29	276	30	14.24	33.48	6.13	24.98	298	0.10
48	11.96	33.44	4.84	258	50	11.76	33.44	4.80	25.44	255	0.16
57	11.21	33.42	4.73	247	75	10.47	33.49	4.13	25.71	229	0.22
67	10.80	33.48	4.48	235	100	9.26	33.72	3.27	26.10	192	0.27
76	10.41	33.49	4.08	228	150	8.59	33.88	2.19	26.33	170	0.36
85	9.98	33.55	3.49	216	200	7.97	34.12	1.77	26.61	144	0.44
94	9.44	33.68	3.38	198	250	7.50	34.24	0.80	26.77	129	0.51
117	8.95	33.78	2.93	183	300	7.27	34.26	0.50	26.82	124	0.58
144	8.62	33.88	2.21	171	400	6.85	34.31	0.35	26.92	114	0.70
190	8.06	34.08	1.92	148	500	6.17	34.38	0.31	27.06	101	0.81
244	7.53	34.23	0.85	130							
341	7.16	34.27	0.41	121							
453	6.44	34.37	0.32	105							
570	5.80	34.38	0.31	96							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

93.40

BLACK DOUGLAS; October 29, 1955; 0355 GCT; 32°30'N, 118°12.5'W; sounding, 930 fm; wind, 240°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	17.1	33.78	5.73	337	0	17.1	33.78	5.73	24.58	337	0.00
10	16.62	33.81	5.82	324	10	16.62	33.81	5.82	24.71	324	0.03
29	13.81	33.60	5.44	281	20	16.31	33.80	5.80	24.78	318	0.06
38	12.88	33.58	5.13	264	30	13.78	33.60	5.43	25.17	280	0.10
48	11.83	33.58	4.80	245	50	11.63	33.58	4.70	25.57	242	0.15
57	10.82	33.57	4.36	229	75	9.72	33.68	3.82	25.99	203	0.20
66	10.1	33.59	4.20	-	100	9.22	33.79	3.33	26.16	187	0.25
76	9.70	33.68	3.81	202	150	8.27	33.98	2.61	26.45	159	0.34
84	9.55	33.68	3.67	199	200	7.81	34.12	2.07	26.64	141	0.42
94	9.32	33.77	3.45	190	250	7.26	34.13	1.86	26.72	133	0.48
117	8.88	33.86	3.06	176	300	6.90	34.20	1.16	26.83	123	0.55
144	8.34	33.96	2.69	161	400	6.48	34.29	0.65	26.95	111	0.67
188	7.90	34.12	2.11	143	500	6.11	34.35	0.46	27.05	102	0.78
244	7.30	34.13	1.88	134							
340	6.72	34.24	0.88	118							
453	6.31	34.33	0.56	106							
570	5.68	34.37	0.32	96							

93.50

BLACK DOUGLAS; October 29, 1955; 1006 GCT; 32°10'N, 118°53'W; sounding, 740 fm; wind, 250°, force 2; weather, clear; sea, moderate; wire angle, 02°.

0	18.1	33.75	5.54	363	0	18.1	33.75	5.54	24.30	363	0.00
9	18.05	33.76	5.67	360	10	18.00	33.76	5.69	24.34	359	0.04
28	13.71	33.55	6.09	283	20	15.92	33.66	5.97	24.76	320	0.07
38	12.08	33.46	4.95	259	30	13.00	33.51	5.65	25.26	272	0.10
48	11.24	33.50	4.73	241	50	11.13	33.50	4.70	25.61	239	0.15
58	10.39	33.51	4.32	226	75	9.60	33.65	3.73	25.99	203	0.21
67	9.81	33.57	3.91	212	100	9.52	33.77	3.23	26.09	193	0.26
76	9.59	33.65	3.71	202	150	8.44	34.00	2.54	26.44	160	0.34
86	9.58	33.68	3.55	200	200	8.09	34.10	2.16	26.58	147	0.42
96	9.58	33.74	3.30	196	250	7.60	34.18	1.67	26.71	134	0.49
119	9.06	33.90	3.01	176	300	7.17	34.22	1.19	26.81	125	0.56
147	8.47	33.99	-	161	400	6.31	34.28	0.64	26.97	109	0.68
193	8.13	34.09	2.21	148	500	5.88	34.35	0.43	27.08	100	0.79
248	7.62	34.18	1.70	134							
346	6.70	34.25	0.80	117							
458	6.02	34.32	0.53	103							
577	5.61	34.39	0.25	93							

93.60

BLACK DOUGLAS; October 29, 1955; 1610, 1626 GCT; 31°50'N, 119°32'W; sounding, 1500 fm; wind, 270°, force 2; weather, partly cloudy; sea, moderate; wire angle, 23°, missing.

0	17.3	33.68a)	6.26	349	0	17.3	33.68	6.26	24.45	349	0.00
9	17.21	33.68	6.06	347	10	17.21	33.68	6.06	24.48	347	0.04
27	17.13	33.68	6.01	345	20	17.17	33.68	6.03	24.48	346	0.07
35	15.76	33.56	5.97	324	30	16.77	33.65	5.98	24.56	339	0.10
45	15.06	33.56	6.37	309	50	14.43	33.53	6.27	24.98	298	0.17
					75	11.23	33.54	4.81	25.61	239	0.23
54	13.48	33.48	5.89	283	100	10.03	33.69	3.43	25.94	207	0.29
63	11.76	33.48	5.02	251	150	8.98	33.97	2.89	26.34	169	0.39
71	11.48	33.51	4.99	244	200	8.22	34.10	2.42	26.55	149	0.47
79	10.82	33.57	4.40	229	250	7.82	34.16	2.04	26.66	139	0.54
87	10.38	33.60	3.85	219	300	7.72	34.31	1.57	26.80	126	0.61
109	9.84	33.80	3.30	196	400	7.07	34.34	0.68	26.91	115	0.73
135	9.27	33.90	3.04	179	500	6.26	34.33		27.01	105	0.85
177	8.54	34.08	2.63	155							
228	7.92	34.11	2.21	144							
319	7.62	34.32	1.37	124							
424	6.84	34.34	0.41	112							
537	6.02	34.33	0.75u	102							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be listed in correct order.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn, m

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BLACK DOUGLAS; October 30, 1955; 1633 GCT; 32°15.5'N, 117°09'W; sounding, 35 fm; wind, calm; weather, fog; sea, slight; wire angle, 00°.

97.30

0	13.02	33.49	6.28	274	0	13.02	33.49	6.28	25.24	274	0.00
10	11.10	33.52	4.55	237	10	11.10	33.52	4.55	25.62	237	0.03
15	11.00	33.51	4.48	236	20	10.95	33.51	4.49	25.64	236	0.05
19	10.96	33.51	4.50	236	30	10.86	33.52	4.38	25.67	233	0.07
24	10.86	33.51	4.39	234							
29	10.87	33.50	4.62u	235							
34	10.80	33.57	4.33	228							
38	10.71	33.52	4.23	230							
49	10.43	33.57	4.00	222							

BLACK DOUGLAS; October 30, 1955; 1459 GCT; 32°11.5'N, 117°17'W; sounding, 700+ fm; wind, 280°, force 1; weather, fog; sea, moderate; wire angle, 04°.

97.32

0	17.3	33.64	5.78	352	0	17.3	33.64	5.78	24.42	352	0.00
10	17.13	33.69	5.93	344	10	17.13	33.69	5.93	24.50	344	0.04
28	13.46	33.45	6.09	285	20	15.00	33.54	6.01	24.86	310	0.07
38	12.87	33.42	6.15	276	30	13.38	33.44	6.10	25.13	284	0.10
47	11.76	33.41	5.64	256	50	11.41	33.43	5.62	25.50	249	0.15
56	10.93	33.46	5.61	238	75	9.81	33.60	4.39	25.91	210	0.21
65	10.30	33.49	4.80	226	100	9.42	33.80	3.42	26.13	189	0.26
74	9.82	33.59	4.40	211	150	9.13	34.08	2.57	26.40	164	0.35
82	9.65	33.64	3.99	205	200	8.34	34.14	(2.27)	26.57	147	0.43
91	9.52	33.71	3.74	197	250	7.71	34.15	(1.98)	26.67	138	0.50
112	9.31	33.93	2.98	178	300	7.55	34.20	(1.88)	26.73	132	0.57
138	9.24	33.99	2.66	172	400	6.93	34.31	1.02	26.91	115	0.70
181	8.65	34.14	2.41	152	500	6.13	34.36	0.54	27.05	102	0.81
232	7.85	34.14	4.19r	140							
324	7.45	34.27	1.81	126							
432	6.61	34.32	0.72	111							
548	5.88	34.38	0.46	97							

BLACK DOUGLAS; October 30, 1955; 1004, 1015 GCT; 31°56'N, 117°50'W; sounding, 720 fm; wind, 240°, force 2; weather, fog; sea, moderate; wire angle, 07°, missing.

97.40

0	17.7	33.71	5.62	356	0	17.7	33.71	5.62	24.38	356	0.00
10	17.68	33.73	5.70	354	10	17.68	33.73	5.70	24.40	354	0.04
28	14.12	33.44	6.20	299	20	17.65	33.73	5.74	24.41	353	0.07
38	13.36	33.46	5.82	282	30	13.98	33.44	6.17	25.00	296	0.10
48	12.50	33.40	5.46	271	50	12.34	33.40	5.43	25.30	268	0.16
57	11.46	33.46	5.23	248	75	10.69	33.48	4.67	25.67	233	0.22
67	10.86	33.47	4.76	236	100	9.77	33.62	3.82	25.94	207	0.28
76	10.66	33.48	4.66	232	150	9.10	33.94	2.64	26.29	174	0.38
85	10.21	33.49	4.30	224	200	8.25	34.00	2.30	26.47	157	0.46
					250	8.02	34.14	1.83	26.62	143	0.54
94	9.94	33.57	4.05	214	300	7.52	34.18	1.46	26.72	133	0.61
118	9.46	33.74	3.30	194	400	6.66	34.24	0.70	26.88	118	0.74
146	9.18	33.92	2.68	176	500	6.28	34.33	0.50	27.01	106	0.85
191	8.38	33.98	2.45	160							
245	8.04	34.13	1.93	144							
342	7.01	34.19	1.08	126							
454	6.54	34.29	0.60	112							
572	5.81	34.37	0.31	97							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

97.50

BLACK DOUGLAS; October 30, 1955; 0355 GCT; 31°32'N, 118°26'W; sounding, 1380 fm; wind, 260°, force 2; weather, clear; sea, slight; wire angle, 06°.

0	18.0	33.71	5.89	363	0	18.0	33.71	5.89	24.30	363	0.00
10	17.46	33.67	5.89	353	10	17.46	33.67	5.89	24.41	353	0.04
29	15.89	33.58	6.04	325	20	16.77	33.63	5.95	24.54	341	0.07
38	14.00	33.48	5.90	293	30	15.60	33.56	6.02	24.76	320	0.10
48	12.88	33.41	6.28	277	50	12.65	33.41	5.99	25.25	273	0.16
57	12.16	33.44	5.51	261	75	11.19	33.40	5.27	25.51	248	0.23
66	11.96	33.40	5.45	261	100	9.93	33.58	4.30	25.88	213	0.29
76	11.15	33.40	5.24	247	150	9.52	34.02	2.50	26.29	174	0.38
86	10.69	33.48	4.83	233	200	8.67	34.23	1.96	26.59	146	0.47
94	10.20	33.53	4.46	221	250	8.24	34.28	(1.65)	26.69	136	0.54
116	9.50	33.69	4.03	198	300	7.95	34.31	(1.40)	26.76	129	0.60
143	9.57	33.97	2.54	178	400	7.21	34.33	(0.95)	26.89	117	0.73
186	8.86	34.20	2.10	151	500	6.41	34.33	0.59	26.99	107	0.85
240	8.30	34.27	1.70	137							
333	7.72	34.33	2.68r	124							
440	6.86	34.33	0.77	113							
554	6.10	34.33	0.49	103							

97.60

BLACK DOUGLAS; October 29, 1955; 2232 GCT; 31°15.5'N, 119°09'W; sounding, 1620 fm; wind, 300°, force 1; weather, clear; sea, moderate; wire angle, 10°.

0	18.1	33.71	5.68	365	0	18.1	33.71	5.68	24.28	365	0.00
10	17.63	33.72	5.64	354	10	17.63	33.72	5.64	24.40	354	0.04
28	17.08	33.70	5.76	343	20	17.33	33.72	5.70	24.47	347	0.07
37	15.06	33.48	6.22	315	30	16.86	33.68	5.82	24.55	339	0.10
47	13.40	33.40	5.93	288	50	13.07	33.40	5.79	25.16	282	0.17
56	12.56	33.40	5.56	272	75	10.87	33.54	4.42	25.68	232	0.23
65	11.56	33.46	4.92	249	100	10.11	33.64	3.52	25.89	212	0.29
74	10.94	33.53	4.49	233	150	9.47	34.00	2.34	26.28	175	0.39
83	10.37	33.57	4.03	221	200	9.19	34.16	2.00	26.45	159	0.47
91	10.28	33.59	3.78	218	250	8.80	34.24	1.35	26.58	147	0.55
114	9.83	33.72	3.12	202	300	8.38	34.29	1.16	26.69	136	0.62
141	9.54	33.93	2.43	181	400	7.51	34.32	0.78	26.84	122	0.76
187	9.25	34.13	2.06	162	500	6.47	34.33	0.46	26.99	108	0.88
244	8.84	34.23	1.38	148							
339	8.06	34.31	1.02	131							
451	6.96	34.33	0.55	114							
571	5.91	34.33	0.40	101							

100.29

STRANGER; October 27, 1955; 2244 GCT; 31°42.5'N, 116°43'W; sounding, 45 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 07°.

0	14.28	33.49	6.44	298	0	14.28	33.49	6.44	24.98	298	0.00
10	12.34	33.49	5.52	262	10	12.34	33.49	5.52	25.37	262	0.03
15	11.26	33.47	4.60	244	20	10.98	33.48	4.72	25.62	237	0.05
20	10.98	33.48	4.72	237	30	10.81	33.49	4.49	25.65	234	0.08
25	10.89	33.48	4.55	236	50	10.27	33.51	4.05	25.76	224	0.12
30	10.81	33.49	4.49	234							
35	10.77	33.49	4.44	233							
45	10.47	33.49	4.39	229							
55	10.13	33.53	3.84	220							
69	9.73	33.58	3.93	210							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; October 27, 1955; 2119 GCT; 31°39'N, 116°46.5'W; sounding, 230 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 17°.

100.30

0	15.9	33.57	6.07	326	0	15.9	33.57	6.07	24.69	326	0.00
9	14.70	33.51	6.06	305	10	14.52	33.50	6.02	24.94	302	0.03
14	12.77	33.43	5.53	273	20	11.97	33.42	5.37	25.39	260	0.06
19	12.08	33.42	5.45	262	30	11.00	33.44	4.72	25.58	241	0.08
23	11.62	33.45	4.59	251	50	10.17	33.60	3.69	25.85	216	0.13
28	11.16	33.44	4.72	244	75	9.48	33.79	2.74	26.12	190	0.18
33	10.71	33.44	4.55	236	100	9.40	33.92	2.51	26.23	180	0.23
43	10.44	33.53	3.97	225	150	8.97	34.04	2.32	26.40	164	0.32
52	10.06	33.62	3.59	212	200	8.78	34.21	1.28	26.57	148	0.39
61	9.60	33.74	3.04	196	250	8.40	34.26	0.56	26.65	140	0.47
74	9.51	33.79	2.75	191							
93	9.43	33.89	2.68	183							
114	9.32	33.95	2.39	174							
150	8.97	34.04	2.32	164							
186	8.85	34.21	1.41	150							
222	-	34.21	1.49	-							
279	8.14	34.27	0.48	135							

STRANGER; October 27, 1955; 1703 GCT; 31°22'N, 117°25'W; sounding, 1050 fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 08°.

100.40

0	17.3	33.58	5.66	356	0	17.3	33.58	5.66	24.38	356	0.00
10	17.26	33.59	5.58	354	10	17.26	33.59	5.58	24.40	354	0.04
30	17.26	33.57	5.71	356	20	17.26	33.58	5.66	24.39	355	0.07
41	16.12	33.47	4.70u	338	30	17.26	33.57	5.71	24.38	356	0.11
50	-	33.36	5.94	-	50	14.77	33.36	5.94	24.80	316	0.17
60	13.48	33.34	5.89	294	75	12.26	33.35	5.46	25.28	270	0.25
70	12.46	33.36	5.55	273	100	10.87	33.46	4.54	25.62	237	0.31
80	12.02	33.35	5.37	266	150	9.12	33.79	3.08	26.18	184	0.42
89	11.34	33.40	4.86	250	200	8.59	34.06	2.38	26.47	157	0.50
99	10.89	33.46	4.58	238	250	8.10	34.15	1.94	26.61	144	0.58
123	9.82	33.61	3.71	210	300	7.58	34.20	1.40	26.73	132	0.65
151	9.08	33.80	3.03	184	400	6.76	34.29	0.63	26.92	114	0.78
200	8.59	34.06	2.38	157	500	6.21	34.35	0.41	27.03	104	0.89
257	8.02	34.16	1.89	142	600	(5.63)	(34.36)	(0.38)	(27.12)	(95)	(1.00)
358	7.02	34.26	0.83	120							
475	6.35	34.34	0.43	106							
597	5.66	24.36	0.38	96							

STRANGER; October 27, 1955; 1153 GCT; 31°05.5'N, 118°07'W; sounding, 750 fm; wind, 340°, force 5; weather, missing; sea, very rough; wire angle, 04°.

100.50

0	17.8	33.63	5.72	364	0	17.8	33.63	5.72	24.29	364	0.00
10	17.64	33.66	5.69	358	10	17.64	33.66	5.69	24.35	358	0.04
29	17.59	33.62	5.22	360	20	17.60	33.63	5.43	24.34	359	0.07
44	13.84	33.39	4.88	297	30	17.58	33.61	5.22	24.34	359	0.11
54	12.57	33.37	4.37	274	50	12.80	33.38	4.53	25.20	278	0.17
63	12.36	33.34	4.11	273	75	11.40	33.25	3.90	25.44	255	0.24
74	11.49	33.35	3.90	256	100	10.01	33.50	3.48	25.80	220	0.30
84	10.58	33.40	3.79	237	150	9.15	33.94	1.57	26.28	175	0.40
98	10.02	33.48	3.64	223	200	8.89	34.14	1.47	26.48	156	0.48
107	9.94	33.56	2.53	215	250	7.97	34.10	1.04	26.59	145	0.56
131	9.28	33.75	1.92	191	300	7.22	34.11	0.57	26.71	134	0.63
159	9.15	33.98	1.55	171	400	(6.66)		(0.25)			
210	8.79	34.14	1.43	154	500	(6.13)		(0.25)			
273	7.50	34.08	0.78	140	600	(5.58)		(0.24)			
382	6.78	34.22	0.25	120							
642	5.29	-	0.24	-							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

100.60

STRANGER; October 27, 1955; 0522, 0555 GCT; 30°43'N, 118°49'W; sounding, 2000+ fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 13°, 13°.

0	17.7	33.64	5.80	361	0	17.7	33.64	5.80	24.33	361	0.00
9	17.58	33.68	5.70	355	10	17.55	33.68	5.72	24.40	354	0.04
24	17.56	33.68	5.80	354	20	17.54	33.68	5.76	24.40	354	0.07
					30	17.55	33.68	5.81	24.40	354	0.11
48	13.34	33.34	6.00	291	50	12.99	33.34	5.92	25.13	284	0.17
59	12.05	33.35	5.42	266	75	11.32	33.40	4.97	25.49	250	0.24
68	11.61	33.40	5.13	255	100	10.02	33.54	3.99	25.83	217	0.30
78	11.17	33.40	4.88	247	150	8.77	33.96	2.61	26.36	168	0.39
97	10.14	33.52	4.06	221	200	8.20	34.09	2.33	26.55	149	0.48
126	9.12	33.71	3.69	191	250	7.75	34.17	1.70	26.68	137	0.55
149	8.80	33.95	2.61	168	300	7.38	34.21	1.18	26.77	128	0.62
195	8.21	34.08	2.36	151	400	6.70	34.28	0.58	26.91	115	0.74
262	7.64	34.18	1.54	135	500	6.19	34.32	0.37	27.02	105	0.86
362	6.98	34.25	0.73	120	600	5.64	34.35	0.32	27.11	96	0.96
490	6.20	34.32	0.38	106	700	(5.02)	34.40	0.36	(27.22)	(86)	(1.06)
659	5.26	34.38	0.32	90	800	(4.53)	34.44	0.43	(27.31)	(77)	(1.15)
872	-	34.47	0.48	-	1000	(3.86)	34.50	0.60	(27.43)	(66)	(1.31)
1167	3.54	34.53	0.73	61							

100.70

STRANGER; October 27, 1955; 0000 GCT; 30°22'N, 119°28'W; sounding, 2000+ fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 10°.

0	18.3	33.73	5.51	368	0	18.3	33.73	5.51	24.25	368	0.00
10	18.25	33.75	5.48	365	10	18.25	33.75	5.48	24.28	365	0.04
25	18.15	33.75	5.53	363	20	18.19	33.75	5.49	24.29	364	0.07
50	14.08	33.50	5.92	294	30	18.12	33.75	5.55	24.31	363	0.11
60	12.84	33.40	5.48	277	50	14.08	33.50	5.92	25.03	294	0.18
70	11.45	33.35	5.24	255	75	10.99	33.40	4.87	25.56	244	0.24
79	10.75	33.45	4.63	236	100	10.14	33.63	3.61	25.88	213	0.30
100	10.14	33.63	3.61	213	150	8.78	33.81	3.02	26.25	178	0.40
124	9.20	33.75	3.26	189	200	8.58	34.13	2.12	26.53	151	0.48
153	8.74	33.82	2.96	177	250	7.98	34.21	1.52	26.68	137	0.56
199	8.58	34.13	2.12	152	300	7.30	34.22	1.14	26.79	127	0.62
265	7.74	34.22	1.35	133	400	6.50	34.26	0.66	26.93	113	0.75
363	6.76	34.23	0.87	119	500	6.00	34.35	(0.42)	27.06	101	0.86
485	6.04	34.34	0.41	102	600	5.45	34.38	(0.33)	27.16	92	0.96
660	5.12	34.41	-	86	700	(4.90)	34.43	(0.38)	(27.26)	(82)	(1.05)
873	-	34.49	0.52	-	800	(4.48)	34.47	(0.45)	(27.33)	(75)	(1.14)
1170	3.50	34.56	0.79	59	1000	(3.82)	34.53	0.67	(27.45)	(64)	(1.29)

100.80

STRANGER; October 26, 1955; 1913 GCT; 30°02'N, 120°05.5'W; sounding, 2000+ fm; wind, 310°, force 4; weather, cloudy; sea, rough; wire angle, 06°.

0	16.9	33.53	5.66	350	0	16.9	33.53	5.66	24.44	350	0.00
10	16.96	33.55	5.69	350	10	16.96	33.55	5.69	24.44	350	0.04
25	16.94	33.55	5.72	350	20	16.95	33.55	5.72	24.44	350	0.07
50	15.68	33.44	6.00	331	30	16.94	33.55	5.72	24.44	350	0.10
60	14.04	33.39	5.89	301	50	15.68	33.44	6.00	24.64	331	0.17
70	13.34	33.39	5.80	287	75	13.00	33.39	5.72	25.17	280	0.25
80	12.61	33.39	5.64	273	100	11.52	33.38	5.20	25.44	254	0.32
100	11.52	33.38	5.20	254	150	9.17	33.70	3.51	26.10	192	0.43
124	9.98	33.49	4.44	220	200	8.18	34.00	2.80	26.49	155	0.52
153	9.05	33.73	3.41	189	250	7.42	34.07	2.06	26.65	140	0.59
200	8.18	34.00	2.80	155	300	7.01	34.14	1.44	26.77	129	0.66
266	7.24	34.10	1.89	135	400	6.45	34.26	0.66	26.93	113	0.79
366	6.66	34.23	0.82	118	500	5.82	34.34	0.39	27.08	99	0.90
489	5.90	34.34	0.40	100	600	5.39	34.36	0.36	27.15	92	1.00
665	5.06	34.38	0.36	88	700	4.98	34.39	0.37	27.22	86	1.10
885	4.22	34.47	0.52	72	800	4.60	34.43	0.42	27.29	79	1.19
1176	3.46	34.53	0.89	60	1000	3.85	34.50	0.68	27.43	66	1.35

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; October 26, 1955; 1314 GCT; 29°34'N, 120°54'W; sounding, 2000+ fm; wind, 340°, force 2; weather, missing; sea, slight; wire angle, 09°.

100.90

0	17.6	33.58	5.81	363	0	17.6	33.58	5.81	24.30	363	0.00
10	17.52	33.59	5.64	360	10	17.52	33.59	5.64	24.34	360	0.04
24	17.52	33.58	5.66	360	20	17.52	33.59	5.65	24.34	360	0.07
48	17.12	33.53	5.88	356	30	17.52	33.58	5.66	24.34	360	0.11
59	15.64	33.57	6.26	321	50	16.97	33.53	5.97	24.42	352	0.18
69	14.46	33.35	6.15	312	75	14.08	33.34	6.16	24.90	306	0.26
78	13.89	33.34	6.16	301	100	12.53	33.33	5.87	25.21	277	0.34
98	12.64	33.33	5.89	279	150	9.90	33.57	4.59	25.87	214	0.46
121	11.34	33.39	5.50	251	200	8.64	33.91	2.82	26.34	169	0.56
149	9.94	33.56	4.67	215	250	7.92	34.08	2.28	26.59	146	0.64
196	8.72	33.89	2.93	171	300	7.21	34.10	1.94	26.70	135	0.71
261	7.79	34.09	2.20	143	400	6.22	34.20	1.09	26.92	114	0.84
358	6.46	34.11	1.58	124	500	6.00	34.31	0.65	27.03	104	0.96
479	6.03	34.30	0.70	105	600	5.48	34.38	0.21	27.16	92	1.06
651	5.13	34.42	0.16	85	700	4.84	34.45	0.25	27.28	80	1.15
862	4.26	34.51	0.55	69	800	4.47	34.49	0.46	27.36	73	1.24
1154	3.44	34.54	0.83	60	1000	3.83	34.53	0.70	27.45	64	1.39

STRANGER; October 28, 1955; 0322 GCT; 31°05'N, 116°25'W; sounding, 41 fm; wind, calm; weather, clear; sea, smooth; wire angle, 00°.

103.30

0	13.56	33.44	6.38	287	0	13.56	33.44	6.38	25.10	287	0.00
10	12.97	33.44	6.24	276	10	12.97	33.44	6.24	25.22	276	0.03
15	12.44	33.42	5.50	268	20	11.90	33.42	4.56	25.41	258	0.06
20	-	33.42	4.56	-	30	10.81	33.48	4.01	25.65	235	0.08
25	11.23	33.46	4.03	244	50	10.20	33.62	3.13	25.86	215	0.12
30	10.81	33.48	4.01	235							
35	10.66	33.51	4.01	230							
40	10.38	33.57	3.29	221							
50	10.20	33.62	3.13	215							
60	10.00	33.70	2.57	206							

STRANGER; October 28, 1955; 0557 GCT; 30°55'N, 116°45'W; sounding, 400 fm; wind, 290°, force 3; weather, clear; sea, moderate; wire angle, 05°.

103.35

0	16.1	33.54	6.05	333	0	16.1	33.54	6.05	24.62	333	0.00
10	16.12	33.54	5.94	333	10	16.12	33.54	5.94	24.62	333	0.03
30	12.07	33.38	5.38	264	20	14.90	33.48	5.71	24.84	312	0.06
40	11.53	33.43	4.89	251	30	12.07	33.38	5.38	25.34	264	0.09
50	11.10	33.43	4.76	244	50	11.10	33.43	4.76	25.55	244	0.14
58p	10.58	33.41	4.81	-							
62p	10.32	33.44	4.72	-							
65p	10.08	33.47	4.47	-							
80p	9.66	33.72	3.18	-							
118p	8.92	33.82	3.02	-							
189p	7.94	34.09	2.12	-							
407p	6.64	34.29	0.61	-							
498p	6.19	34.33	0.40	-							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

103.40

STRANGER; October 28, 1955; 0850 GCT; 30°45'N, 117°05.5'W; sounding, 1000 fm; wind, 300°, force 3; weather, clear; sea, very rough; wire angle, 00°.

0	16.0	33.55	5.93	329	0	16.0	33.55	5.93	24.66	329	0.00
10	15.76	33.53	6.00	326	10	15.76	33.53	6.00	24.69	326	0.03
30	12.68	33.40	5.61	274	20	13.94	33.44	5.87	25.02	295	0.06
40	11.79	33.40	5.08	258	30	12.68	33.40	5.61	25.24	274	0.09
51	11.23	33.44	4.61	246	50	11.28	33.44	4.63	25.52	247	0.14
60	10.67	33.47	4.52	233	75	10.10	33.50	4.08	25.78	222	0.20
70	10.16	33.50	4.17	223	100	9.72	33.72	3.19	26.02	200	0.26
80	10.06	33.49	3.95	222	150	9.06	33.98	2.73	26.33	170	0.35
90	9.76	33.62	3.61	208	200	8.24	34.07	2.61	26.53	151	0.43
99	9.72	33.70	3.31	201	250	7.75	34.13	1.78	26.65	140	0.50
124	9.62	33.96	2.50	180	300	7.17	34.16	1.33	26.76	130	0.57
152	9.00	33.98	2.76	169	400	6.21	34.22	0.95	26.94	113	0.70
199	8.25	34.07	2.62	152	500	5.78	34.30	0.77	27.06	101	0.81
255	7.72	34.14	1.71	139	600	(5.43)	(34.38)	(0.54)	(27.15)	(92)	(0.91)
354	6.55	34.18	1.04	120							
469	-	34.27	0.85	-							
591	5.46	34.37	0.55	93							

107.32

STRANGER; October 28, 1955; 2058 GCT; 30°26'N, 116°11'W; sounding, 192 fm; wind, 300°, force 3; weather, overcast; sea, very rough; wire angle, 10°.

0	14.8	33.46	6.22	311	0	14.8	33.46	6.22	24.85	311	0.00
10	13.86	33.43	6.18	294	10	13.86	33.43	6.18	25.03	294	0.03
15	12.65	33.39	5.50	274	20	12.51	33.40	5.49	25.27	271	0.06
20	12.51	33.40	5.49	271	30	11.99	33.42	5.20	25.39	260	0.08
24	12.27	33.42	5.44	265	50	10.62	33.48	4.00	25.68	232	0.13
29	12.06	33.42	5.25	261	75	9.93	33.75	2.81	26.01	201	0.19
34	11.74	33.42	5.07	256	100	9.81	33.92	2.57	26.16	186	0.24
44	11.32	33.44	4.72	246	150	9.73	34.22	2.02	26.41	163	0.33
54	10.38	33.50	3.77	226	200	9.48	34.26	1.31	26.49	155	0.41
64	10.09	33.59	3.29	215	250	9.10	34.32	1.16	26.59	145	0.48
78	9.90	33.78	2.74	198	300	(8.68)	(34.34)	(1.05)	(26.68)	(137)	(0.56)
97	9.84	33.88	1.44r	190							
120	9.64	34.03	2.15	176							
158	9.73	34.23	2.00	162							
196	9.49	34.26	1.32	156							
235	-	34.31	1.20	-							
292	8.77	34.34	1.05	138							

107.35

STRANGER; October 28, 1955; 1631 GCT; 30°21'N, 116°23.5'W; sounding, 900 fm; wind, 310°, force 3; weather, fog; sea, moderate; wire angle, 02°.

0	15.4	33.48	6.05	322	0	15.4	33.48	6.05	24.73	322	0.00
10	15.38	33.48	6.08	322	10	15.38	33.48	6.08	24.73	322	0.03
31	13.48	33.39	6.00	290	20	15.34	33.48	6.07	24.74	321	0.06
40	12.68	33.37	5.67	276	30	13.67	33.40	6.02	25.04	293	0.10
51	11.88	33.39	5.12	260	50	11.95	33.39	5.16	25.36	262	0.15
61	11.07	33.44	4.64	242	75	10.31	33.51	4.01	25.76	224	0.21
70	10.56	33.49	4.28	230	100	9.43	33.67	3.36	26.03	199	0.26
80	10.02	33.55	3.75	217	150	8.46	33.95	2.90	26.40	164	0.36
90	9.62	33.60	3.48	207	200	8.46	34.15	1.96	26.56	149	0.44
99	9.44	33.66	3.37	200	250	8.38	34.26	1.26	26.66	139	0.51
123	8.88	33.82	2.53u	179	300	7.72	34.31	0.77	26.79	126	0.58
152	8.46	33.95	2.89	164	400	6.83	34.33	0.53	26.94	112	0.70
200	8.46	34.15	1.96	149	500	6.17	34.35	0.42	27.04	102	0.81
256	8.31	34.28	1.17	137	600	(5.40)	(34.38)	(0.37)	(27.16)	(92)	(0.92)
336	7.24	34.32	0.62	119							
596	5.42	34.38	0.37	92							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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STRANGER; October 28, 1955; 1335 GCT; 30°11'N, 116°44'W; sounding, 1600 fm; wind, 040°, force 3; weather, clear; sea, moderate; wire angle, 05°.

107.40

0	17.1	33.58	5.61	352	0	17.1	33.58	5.61	24.42	352	0.00
10	17.08	33.58	5.71	352	10	17.08	33.58	5.71	24.42	352	0.04
30	16.89	33.57	5.76	348	20	16.98	33.58	5.74	24.44	350	0.07
40	15.77	33.49	6.03	329	30	16.89	33.57	5.76	24.46	348	0.10
49	13.91	33.37	6.08	299	50	13.87	33.37	6.06	24.98	299	0.17
60	12.85	33.38	5.69	278	75	12.00	33.38	5.19	25.35	263	0.24
70	12.27	33.37	6.21r	269	100	10.47	33.49	4.18	25.72	229	0.30
80	11.68	33.40	5.00	256	150	9.17	33.85	3.23	26.22	181	0.41
89	10.88	33.42	4.46	241	200	8.63	34.06	2.21	26.46	158	0.49
99	10.52	33.48	4.23	230	250	7.94	34.13	1.86	26.62	143	0.57
123	9.68	33.64	3.43	205	300	7.34	34.16	1.33	26.73	132	0.64
151	9.17	33.86	3.21	180	400	6.55	34.24	0.56	26.90	116	0.77
196	8.69	34.05	2.26	159	500	5.95	34.34	0.35	27.06	101	0.88
254	7.90	34.13	1.83	142	600	(5.41)	(34.39)	(0.42)	(27.16)	(91)	(0.98)
352	6.88	34.18	0.91	125							
466	-	34.31	0.34	-							
588	5.47	34.38	0.40	92							

STRANGER; October 24, 1955; 1851 GCT; 29°50.5'N, 115°52.5'W; sounding, 52 fm; wind, 310°, force 3; weather, fog; sea, moderate; wire angle, 07°.

110.33

0	15.04	33.44	6.36	318	0	15.04	33.44	6.36	24.78	318	0.00
15	14.22	33.44	6.24	301	10	14.54	33.44	6.30	24.88	308	0.03
25	12.64	33.41	5.75	272	20	13.60	33.43	6.12	25.07	290	0.06
35	-	33.45	4.93	-	30	12.07	33.42	5.34	25.38	261	0.09
45	10.87	33.51	4.09	234	50	10.79	33.55	4.28	25.71	229	0.14
50	10.79	33.55	4.28	229	75	9.99	33.72	3.01	25.97	204	0.19
55	10.58	33.57	4.26	224							
60	10.46	33.60	3.79	220							
65	10.42	33.60	3.35	220							
70	10.08	33.68	3.12	208							
80	9.89	33.75	2.86	200							

STRANGER; October 24, 1955; 2026 GCT; 29°46.5'N, 116°00'W; sounding, 700 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 13°.

110.35

0	18.5	33.75	5.50	372	0	18.5	33.75	5.50	24.21	372	0.00
9	18.49	33.74	5.54	373	10	18.48	33.74	5.55	24.20	373	0.04
29	15.25	33.44	6.26	322	20	18.45	33.73	5.59	24.21	372	0.07
39	13.46	33.40	6.03	289	30	15.21	33.43	6.26	24.78	318	0.11
49	13.08	33.41	5.57	281	50	13.04	33.41	5.51	25.18	279	0.17
59	11.79	33.40	5.20	258	75	10.67	33.46	4.50	25.67	233	0.23
68	11.00	33.46	4.71	240	100	9.82	33.66	3.28	25.95	206	0.29
77	10.54	33.47	4.44	231	150	8.89	33.97	2.75	26.35	168	0.38
87	9.86	33.54	4.02	215	200	8.42	34.13	2.23	26.54	150	0.46
96	9.87	33.58	3.84	212	250	8.09	34.21	1.70	26.66	138	0.54
119	9.61	33.79	2.99	193	300	7.80	34.26	1.19	26.74	131	0.61
146	8.96	33.96	2.76	170	400	7.09	34.32	0.92	26.89	117	0.74
191	8.48	34.11	2.23	152	500	6.17	34.36	0.97	27.05	102	0.85
246	8.10	34.21	1.71	139							
343	7.58	34.29	0.83	125							
456	6.51	34.34	1.02	108							
578	5.76	34.40	0.82	94							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

110.40

STRANGER; October 24, 1955; 2324 GCT; 29°36.5'N, 116°19.5'W; sounding, 1160 fm; wind, 310°, force 5; weather, cloudy; sea, moderate; wire angle, 20°.

0	18.5	33.73	5.16	373	0	18.5	33.73	5.16	24.20	373	0.00
10	18.46	33.74	5.52	371	10	18.46	33.74	5.52	24.22	371	0.04
23	17.59	33.66	5.54	357	20	18.37	33.74	5.54	24.24	369	0.07
48	15.24	33.48	6.07	319	30	16.91	33.60	5.68	24.48	346	0.11
57	13.86	33.39	5.94	297	50	14.90	33.47	6.06	24.82	314	0.18
66	13.02	33.42	5.75	279	75	12.58	33.38	5.63	25.24	274	0.25
76	12.48	33.37	5.62	273	100	10.52	33.44	4.68	25.66	233	0.31
94	10.98	33.39	4.99	244	150	8.91	33.81	3.24	26.23	180	0.42
117	9.76	33.58	3.98	210	200	8.26	34.02	3.03	26.49	155	0.50
144	9.06	33.78	3.28	185	250	8.58	34.29	1.42	26.65	140	0.58
187	8.26	33.97	3.18	159	300	8.23	34.33	0.98	26.73	132	0.65
249	8.58	34.29	1.42	140	400	7.20	34.34	0.58	26.89	117	0.78
343	7.84	34.34	0.74	126	500	6.13	34.36	0.42	27.05	102	0.89
458	6.50	34.34	0.44	108	600	5.59	34.45	0.41	27.20	88	0.99
624	5.46	34.46a)	0.40	86	700	5.10	34.47	0.40	27.27	82	1.08
830	4.50	34.48	0.45	74	800	4.61	34.48	0.42	27.33	76	1.17
1120	3.56	34.55	0.80	59	1000	3.92	34.52	0.64	27.43	66	1.32

110.50

STRANGER; October 25, 1955; 0437 GCT; 29°16'N, 116°59'W; sounding, 2000+ fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	18.7	33.77	5.48	375	0	18.7	33.77	5.48	24.18	375	0.00
9	18.68	33.73	5.48	377	10	18.66	33.73	5.48	24.15	377	0.04
24	17.90	33.62	5.72	367	20	18.60	33.71	5.51	24.15	377	0.08
55	15.22	33.53	5.96	315	30	17.25	33.59	5.84	24.40	354	0.11
64	14.57	33.50	5.92	303	50	15.61	33.54	5.95	24.74	322	0.18
73	13.67	33.46	5.78	288	75	(13.52)	(33.46)	(5.72)	(25.11)	(286)	(0.26)
106p	10.68	34.50	4.64	-							
395p	7.91	34.35	0.82	-							
696p	5.48	34.38	0.32	-							
890p	4.54	34.47	0.49	-							

110.60

STRANGER; October 25, 1955; 0942 GCT; 28°55.5'N, 117°38'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 12°.

0	18.3	33.71	5.63	370	0	18.3	33.71	5.63	24.23	370	0.00
9	18.43	33.75	5.70	370	10	18.43	33.75	5.71	24.23	370	0.04
23	18.45	33.74	5.73	371	20	18.43	33.74	5.73	24.22	371	0.07
54	15.33	33.48	6.18	321	30	18.43	33.74	5.73	24.22	371	0.11
63	14.57	33.42	6.23	319	50	16.15	33.54	6.10	24.62	333	0.18
72	13.42	33.39	6.02	289	75	13.18	33.39	5.97	25.13	284	0.26
86	12.30	33.39	5.66	268	100	11.20	33.43	5.01	25.53	246	0.33
106	10.84	33.46	4.63	237	150	9.72	33.78	3.33	26.07	195	0.44
129	10.36	33.60	3.81	219	200	8.95	34.04	2.60	26.40	164	0.53
157	9.55	33.82	3.18	190	250	8.26	34.13	2.19	26.57	147	0.61
209	8.82	34.07	2.52	160	300	7.72	34.21	1.65	26.72	133	0.68
285	7.86	34.18	1.89	138	400	7.21	34.33	0.72	26.88	118	0.81
388	7.24	34.33	0.78	118	500	6.40	34.33	0.48	27.00	107	0.93
525	6.16	34.34	0.42	104	600	5.62	34.40	0.37	27.15	92	1.04
722	5.07	34.47	0.36	81	700	5.20	34.46	0.36	27.25	83	1.13
935	4.17	34.51	0.60	68	800	4.79	34.49	0.42	27.32	76	1.22
1234	3.41	34.54	0.93	59	1000	3.89	34.52	0.71	27.44	65	1.37

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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STRANGER; October 25, 1955; 1447 GCT; 28°34'N, 118°18.5'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, slight; wire angle, 08°.

110.70

0	18.6	33.71	5.54	377	0	18.6	33.71	5.54	24.16	377	0.00
10	18.57	33.73	5.84	375	10	18.57	33.73	5.84	24.18	375	0.04
25	18.57	33.76	5.52	372	20	18.57	33.76	5.52	24.20	372	0.08
51	16.98	33.57	5.88	349	30	18.57	33.76	5.52	24.20	372	0.11
60	-	33.49	6.10	-	50	17.13	33.59	5.82	24.42	352	0.18
70	15.00	33.39	6.23	320	75	14.78	33.39	6.17	24.80	316	0.27
80	14.53	33.41	6.10	309	100	13.27	33.47	6.24	25.18	280	0.34
99	13.30	33.47	6.27	281	150	10.07	33.53	4.53	25.81	220	0.47
125	12.32	33.49	5.26	261	200	8.71	33.84	3.39	26.28	175	0.57
154	9.82	33.54	4.40	215	250	8.40	34.07	2.62	26.50	154	0.66
202	8.68	33.86	3.33	173	300	7.94	34.17	1.96	26.66	139	0.73
269	8.26	34.14	2.33	147	400	6.80	34.27	0.88	26.89	117	0.87
367	7.03	34.23	1.12	123	500	6.24	34.34	0.41	27.02	105	0.98
489	6.32	34.34	0.44	105	600	5.71	34.39	0.34	27.13	94	1.09
663	5.25	34.42	0.32	87	700	5.01	34.44	0.36	27.24	84	1.18
876	4.29	34.49	0.54	71	800	4.59	34.46	0.44	27.32	76	1.27
1172	3.50	34.56	0.81	59	1000	3.88	34.52	0.66	27.44	65	1.43

STRANGER; October 25, 1955; 1930, 1947 GCT; 28°16'N, 118°57.5'W; sounding, 2000+ fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 00°, 05°.

110.80

0	17.5	33.56	5.62	362	0	17.5	33.56	5.62	24.31	362	0.00
10	17.44	33.56	5.62	360	10	17.44	33.56	5.62	24.33	360	0.04
25	17.43	33.57	5.61	360	20	17.43	33.57	5.61	24.34	360	0.07
49	16.90	33.57	5.81	348	30	17.43	33.57	5.61	24.34	360	0.11
					50	16.85	33.57	5.83	24.47	347	0.18
60	16.10	33.58	5.96	329	75	15.17	33.53	5.94	24.82	314	0.26
70	15.43	33.58	5.94	315	100	13.82	33.52	5.81	25.10	287	0.34
79	15.13	33.53	5.94	313	150	11.12	33.53	4.71	25.63	236	0.47
100	13.82	33.52	5.81	287	200	8.99	33.76	3.86	26.18	184	0.58
125	12.62	33.50	5.48	266	250	8.10	33.95	3.32	26.46	158	0.67
154	10.83	33.54	4.61	231	300	7.45	34.04	2.76	26.62	142	0.74
202	8.92	33.77	3.88	183	400	6.42	34.14	1.44	26.84	122	0.88
268	7.81	34.01	3.12	150	500	5.80	34.25	0.63	27.01	106	1.00
369	6.68	34.11	1.77	127	600	5.27	34.33	0.33	27.14	93	1.11
494	5.84	34.24	0.68	107	700	4.86	34.39	0.36	27.23	85	1.20
670	4.96	34.38	0.33	87	800	4.60	34.46	0.43	27.31	77	1.29
885	4.38	34.51	0.54	70	1000	3.98	34.54	0.70	27.44	65	1.45
1185	3.48	34.56	0.87	58							

STRANGER; October 26, 1955; 0058 GCT; 27°56'N, 119°36'W; sounding, 2000+ fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°.

110.90

0	18.9	33.78	5.46	379	0	18.9	33.78	5.46	24.14	379	0.00
10	18.71	33.78	5.46	374	10	18.71	33.78	5.46	24.19	374	0.04
25	18.64	33.78	5.40	373	20	18.64	33.78	5.40	24.20	373	0.08
50	17.49	33.77	5.75	347	30	18.64	33.78	5.40	24.20	373	0.11
60	16.54	33.69	5.92	331	50	17.49	33.77	5.75	24.47	347	0.18
70	16.55	33.86	5.85	319	75	16.35	33.86	5.83	24.81	315	0.27
80	16.07	33.86	5.80	308	100	15.26	33.87	5.64	25.07	290	0.34
100	15.26	33.87	5.64	290	150	11.14	33.48	5.13	25.59	240	0.48
125	12.78	33.55	5.39	264	200	9.90	33.96	4.79	26.18	185	0.59
154	11.02	33.49	-	238	250	9.12	34.20	2.70	26.50	154	0.67
200	9.90	33.96	4.79	185	300	8.57	34.30	1.33	26.66	139	0.75
266	8.92	34.25	2.00	147	400	7.61	34.35	0.68	26.84	121	0.88
365	8.00	34.36	0.79	126	500	6.43	34.33	0.48	26.99	108	1.01
489	6.56	34.33	0.52	109	600	5.80	34.37	0.40	27.11	96	1.11
664	5.52	34.40	0.37	91	700	5.40	34.41	0.37	27.19	88	1.21
879	4.61	34.49	0.42	75	800	4.98	34.46	0.39	27.27	81	1.31
1177	3.67	34.54	0.81	62	1000	4.21	34.52	0.58	27.40	68	1.47

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

113.30

STRANGER; October 24, 1955; 1405 GCT; 29°23'N, 115°18'W; sounding, 28 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	13.06	33.64	5.66	263	0	13.06	33.64	5.66	25.35	263	0.00
10	13.07	33.53a)	5.73	272	10	13.07	33.53	5.73	25.26	272	0.03
15	13.06	33.51	5.73	273	20	13.05	33.51	5.72	25.25	273	0.05
20	13.05	33.51	4.09r	273	30	12.85	33.48	5.74	25.27	271	0.08
25	13.03	33.51	5.72	273							
30	12.85	33.48	5.74	271							
35	12.27	33.48	5.63	260							
40	10.96	33.53	5.24	233							

113.35

STRANGER; October 24, 1955; 1026, 1045 GCT; 29°10.5'N, 115°41.5'W; sounding, 600 fm; wind, 310°, force 4; weather, clear; sea, slight; wire angle, 19°, 34°.

0	14.3	33.48	7.09	299	0	14.3	33.48	7.09	24.97	299	0.00
9	14.06	33.48	7.10	294	10	14.05	33.48	7.08	25.03	294	0.03
29	12.25	33.43	5.19	264	20	13.78	33.47	6.89	25.08	289	0.06
39	11.71	33.48	4.86	250	30	12.22	33.43	5.16	25.35	263	0.09
49	11.04	33.45	4.59	241	50	10.99	33.45	4.57	25.59	240	0.14
57	10.58	33.50	4.38	230	75	9.83	33.61	3.97	25.91	210	0.19
67	10.10	33.52	4.14	221	100	9.39	33.76	3.53	26.11	191	0.24
76	9.81	33.61	3.94	210	150	9.92	34.20	1.70	26.36	167	0.33
85	9.60	33.68b)	3.67b)	-	200	9.48	34.28	1.56	26.49	155	0.42
					250	8.69	34.32	1.27	26.65	140	0.49
85	9.60	33.64b)	3.84b)	-	300	8.25	34.37	0.72	26.77	129	0.56
106	9.38	33.78	3.40	189	400	7.20	34.37	0.54	26.91	115	0.68
132	9.92	34.11	1.92	174	500	6.24		0.77			
172	9.90	34.28	1.54	161							
222	9.06	34.28	1.62	148							
311	8.18	34.38	0.69	127							
412	7.08	34.37	0.54	113							
520	6.04	-	0.83	-							

113.40

STRANGER; October 24, 1955; 0700 GCT; 29°02'N, 115°58.5'W; sounding, 1000 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	18.3	33.68	5.40	372	0	18.3	33.68	5.40	24.21	372	0.00
9	18.28	33.68	5.39	372	10	18.28	33.68	5.39	24.21	372	0.04
28	17.73	33.62	5.56	363	20	18.28	33.68	5.39	24.21	372	0.07
37	15.32	33.44	6.20	323	30	17.25	33.57	5.72	24.39	354	0.11
48	13.85	33.40	5.89	296	50	13.78	33.40	5.89	25.02	295	0.18
57	13.46	33.39	5.84	289	75	12.03	33.40	5.26	25.36	262	0.24
65	12.50	33.40	5.48	271	100	10.91	33.47	4.57	25.63	237	0.31
75	12.03	33.40	5.26	262	150	9.19	33.90	3.26	26.25	178	0.41
85	11.08	33.44u	4.74	-	200	8.78	34.06	2.39	26.44	160	0.50
94	11.02	33.43u	4.70	-	250	8.97	34.34	1.21	26.63	142	0.58
116	10.30	33.70	2.75	210	300	8.38	34.34	0.89	26.72	133	0.65
142	9.36	33.86	3.30	184	400	7.31	34.41	0.66	26.93	113	0.77
188	8.74	34.04	2.46	161	500	6.40	34.41	0.70	27.06	101	0.89
236p	9.04	34.33	1.39	144							
330p	8.02	34.34	0.79	128							
440p	6.95	34.43	0.64	107							
559p	5.83	34.38	0.76	97							

a) Loose bottle cap; value falls on property curve.

b) Averages of the two salinity and two oxygen values obtained at 85 meters were used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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STRANGER; October 23, 1955; 0547 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 280°, force 3; weather, clear; sea, slight; wire angle, 02°.

117.26

0	15.48	33.52	6.45	321	0	15.48	33.52	6.45	24.74	321	0.00
10	15.46	33.56	6.48	317	10	15.46	33.56	6.48	24.78	317	0.03
15	12.68	33.54	5.43	264	20	12.06	33.53	4.40	25.46	253	0.06
20	12.06	33.53	4.40	253	30	11.10	33.56	4.09	25.66	234	0.08
25	11.53	33.49	4.39	247	50	10.38	33.67	2.66	25.87	214	0.13
30	11.10	33.56	4.09	234	75	(10.31)	(33.72)	(1.70)	(25.92)	(209)	(0.18)
35	10.92	33.57	3.66	230							
45	10.45	33.64	3.07	218							
70	10.31	33.71	1.76	210							

STRANGER; October 23, 1955; 0759 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 300°, force 6; weather, clear; sea, rough; wire angle, 16°.

117.30

0	16.50	33.58	5.86	338	0	16.50	33.58	5.86	24.57	338	0.00
9	16.52	33.57	6.02	339	10	16.48	33.57	5.93	24.56	339	0.03
14	16.42	33.58	5.78	336	20	15.20	33.50	6.12	24.79	316	0.07
19	15.37	33.50	6.18	320	30	12.45	33.50	4.72	25.35	263	0.10
23	14.08	33.48	5.32	295	50	10.63	33.64	3.28	25.81	220	0.14
33	12.03	33.51	4.59	255							
44	10.88	33.60	3.72	227							
53	10.58	33.66	3.10	218							
67	10.32	33.82	2.19	202							

STRANGER; October 23, 1955; 1107 GCT; 28°38'N, 115°16'W; sounding, 121 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 10°.

117.35

0	14.30	33.41	6.32	305	0	14.30	33.41	6.32	24.91	305	0.00
10	14.31	33.42	6.35	304	10	14.31	33.42	6.35	24.93	304	0.03
15	14.16	33.43	6.30	300	20	13.77	33.43	6.01	25.05	292	0.06
19	13.82	33.42	6.04	295	30	12.52	33.40	5.23	25.26	272	0.09
24	13.39	33.44	5.80	284	50	10.88	33.56	3.66	25.70	230	0.14
29	12.58	33.40	5.19	272	75	10.32	33.84	2.67	26.01	201	0.19
34	12.46	33.41	5.28	269	100	10.40	34.08	1.96	26.19	184	0.24
43	11.24	33.48	4.36	243	150	10.02	34.19	1.49	26.34	169	0.33
53	10.69	33.62	3.13	223	200	(9.62)	(34.37)		(26.54)	(150)	(0.41)
62	10.32	33.74	2.76	208							
71	10.34	33.80	2.76	204							
90	10.30	34.00	2.11	188							
104	10.44	34.13	1.84	181							
130	10.34	34.17	1.42	176							
159	9.85	34.21	1.53	165							
192	9.66	34.33	1.09	153							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

117.40

STRANGER; October 23, 1955; 1355, 1434 GCT; 28°28'N, 115°36'W; sounding, 300 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°, 10°.

0	15.9	33.51	5.91	330	0	15.9	33.51	5.91	24.65	330	0.00	
10	15.86	33.51	5.92	329	10	15.86	33.51	5.92	24.66	329	0.03	
29	14.38	33.46	5.19	302	20	15.85	33.51	5.92	24.66	329	0.07	
39	13.85	33.42	4.96	295	30	14.28	33.45	5.14	24.95	301	0.10	
49	-	33.40	5.29	-	50	12.62	33.40	5.27	25.25	273	0.16	
58	11.76	33.41	4.91	257	75	11.03	33.54	3.98	25.66	234	0.22	
69	11.33	33.42	4.55	248	100	10.62	34.08	1.78	26.14	188	0.27	
					150	10.09	34.20	1.48	26.33	170	0.36	
77	10.96	33.58	3.79	230	200	9.66	34.30	1.10	26.48	156	0.44	
87	10.72	33.70	3.26	217	250	9.18	34.33	0.90	26.59	145	0.52	
96	10.62	33.91	2.42	200	300	8.62	34.34	0.81	26.68	137	0.60	
114	10.60	34.12	1.69	184	400	7.58	34.34	0.64	26.84	122	0.73	
137	10.22	34.16	1.47	175	500	(6.32)	(34.34)	(0.29)	(27.01)	(106)	(0.85)	
156	10.02	34.22	1.48	168								
193	9.73	34.29	1.10	158								
269	8.99	34.34	0.87	142								
367	7.95	34.34	0.71	127								
484	6.54	34.34	0.36	108								

120.25

STRANGER; October 23, 1955; 0100 GCT; 28°22.5'N, 114°14'W; sounding, 26 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	16.65	33.58	5.78	341	0	16.65	33.58	5.78	24.53	341	0.00	
10	16.65	33.57	5.81	342	10	16.65	33.57	4.81	24.52	342	0.03	
15	16.02	33.57	6.00	329	20	15.54	33.47	6.04	24.69	326	0.07	
20	15.54	33.47	6.04	326	30	12.64	33.48	4.97	25.31	268	0.10	
25	13.31	33.48	5.36	280								
30	12.64	33.48	4.97	268								
35	12.10	33.48	4.66	257								
40	11.52	33.48	4.56	247								

120.27

STRANGER; October 22, 1955; 2324 GCT; 28°18.5'N, 114°22.5'W; sounding, 46 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	16.70	33.57	5.87	343	0	16.70	33.57	5.87	24.51	343	0.00	
10	16.48	33.57	5.89	339	10	16.48	33.57	5.89	24.56	339	0.03	
15	16.12	33.57	6.00	330	20	15.53	33.51	6.05	24.72	323	0.07	
20	15.53	33.51	6.05	323	30	13.69	33.46	5.87	25.08	289	0.10	
24	15.38	33.51	5.91	319	50	11.45	33.48	4.45	25.52	247	0.15	
29	13.87	33.46	5.94	292								
34	13.22	33.46	5.48	280								
44	12.08	33.47	4.70	258								
54	11.19	33.49	4.30	241								
68	10.60	33.69	2.68	216								

120.30

STRANGER; October 22, 1955; 1631 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 13°.

0	17.92	33.64	5.59	366	0	17.92	33.64	5.59	24.27	366	0.00	
10	17.93	33.62	5.61	368	10	17.93	33.62	5.61	24.25	368	0.04	
14	17.90	33.62	5.69	366	20	17.89	33.64	5.58	24.28	365	0.07	
19	17.89	33.64	5.58	365	30	17.46	33.60	5.72	24.35	359	0.11	
24	17.69	33.60	5.69	363	50	14.00	33.48	5.61	25.04	293	0.18	
29	17.51	33.60	5.73	359								
33	17.34	33.58	5.72	357								
43	16.06	33.55	5.72	331								
53	13.29	33.46	5.47	281								
69	11.36	33.58	3.71	237								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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STRANGER; October 22, 1955; 1341 GCT; 28°03'N, 114°54'W; sounding, 44 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 00°.

120.35

0	17.10	33.71	5.76	342	0	17.10	33.71	5.76	24.52	342	0.00
10	17.10	33.61	5.70	349	10	17.10	33.61	5.70	24.45	349	0.04
20	16.93	33.58	5.83	348	20	16.93	33.58	5.83	24.46	348	0.07
25	-	33.58	5.86	-	30	16.40	33.57	5.96	24.58	337	0.10
30	16.40	33.57	5.96	337	50	12.86	33.54	4.71	25.31	267	0.16
35	15.68	33.53	5.84	324							
40	14.45	33.52	5.38	300							
45	13.40	33.51	4.91	279							
50	12.86	33.54	4.71	267							
60	11.70	33.50	4.34	248							

STRANGER; October 22, 1955; 0812 GCT; 27°43'N, 115°33'W; sounding, 1200 fm; wind, 350°, force 5; weather, missing; sea, moderate; wire angle, 26°.

120.45

0	17.3	33.64	5.98	352	0	17.3	33.64	5.98	24.42	352	0.00
8	17.22	33.68	6.24	347	10	17.22	33.68	6.24	24.47	347	0.04
23	14.70	33.48	6.04	307	20	17.13	33.68	6.23	24.49	345	0.07
50	11.00	33.51	4.54	236	30	13.00	33.48	5.65	25.24	274	0.10
60	-	33.53	4.35	-	50	11.00	33.51	4.54	25.64	236	0.15
68	10.00	33.60	3.93	213	75	9.87	33.66	3.61	25.95	206	0.21
82	9.83	33.75	3.15	200	100	9.98	33.97	2.49	26.17	185	0.26
100	9.98	33.97	2.49	185	150	10.91	34.50	0.79	26.43	161	0.34
121	10.15	34.16	2.02	174	200	10.05	34.48	0.73	26.56	149	0.42
145	10.96	34.50	0.80	162	250	9.78	34.59	0.37	26.69	136	0.49
190	10.16	34.47	0.76	151	300	9.13	34.54	0.33	26.76	130	0.56
256	9.72	34.59	0.34	135	400	7.81	34.45	0.28	26.89	117	0.69
348	8.42	34.48	0.32	124	500	6.89	34.46	0.22	27.03	104	0.80
469	7.14	34.45	0.23	108	600	6.14	34.49	0.21	27.16	92	0.91
631	5.88	34.49a)	0.21	89	700	5.41	34.48	0.28	27.24	84	1.00
834	4.59	34.41	0.43	76	800	4.79	34.47	0.39	27.30	78	1.09
1112	3.70	34.54	0.70	62	1000	3.97	34.51	0.62	27.42	66	1.25

STRANGER; October 22, 1955; 0418 GCT; 27°33'N, 115°52.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

120.50

0	17.8	33.66	5.56	362	0	17.8	33.66	5.56	24.31	362	0.00
9	17.76	33.64	5.48	362	10	17.76	33.64	5.48	24.31	362	0.04
24	16.44	33.56	5.76	339	20	17.74	33.63	5.48	24.32	362	0.07
53	11.80	33.49	4.61	252	30	15.12	33.53	5.60	24.83	312	0.11
63	11.34	33.59	4.05	236	50	12.19	33.49	4.82	25.40	258	0.16
71	12.13	33.95	2.26	224	75	12.08	33.98	1.96	25.81	220	0.22
85	11.83	34.01	1.61	214	100	11.58	34.10	1.50	25.99	203	0.28
104	11.50	34.11	1.50	200	150	9.95	34.20	1.71	26.35	168	0.37
127	9.70	33.98	2.72	180	200	8.98	34.23	1.86	26.54	150	0.45
156	9.98	34.23	1.64	166	250	8.59	34.39	1.42	26.73	132	0.52
206	8.87	34.23	1.89	149	300	8.45	34.45	0.71	26.80	126	0.59
281	8.52	34.42	0.97	130	400	7.73	34.49	0.25	26.90	116	0.71
385	8.08	34.49	0.28	118	500	6.67	34.48	0.25	27.08	100	0.83
520	6.47	34.48	0.23	97	600	5.95	34.49	0.25	27.19	89	0.93
703	5.40	34.52	0.26	81	700	5.42	34.52	0.25	27.27	81	1.02
930	4.34	34.54	0.46	68	800	4.95	34.53	0.32	27.33	75	1.10
1226	3.44	34.67	0.87	50	1000	4.07	34.55	0.57	27.45	64	1.25

a) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

120.60

STRANGER; October 21, 1955; 2247 GCT; 27°12.5'N, 116°31'W; sounding, 2000+ fm; wind, 350°, force 4; weather, cloudy; sea, moderate; wire angle, 11°.

0	19.1	33.74	5.31	387	0	19.1	33.74	5.31	24.06	387	0.00
10	19.00	33.77	5.31	382	10	19.00	33.77	5.31	24.10	382	0.04
24	18.62	33.75	5.31	375	20	18.72	33.76	5.31	24.16	377	0.08
49	15.98	33.51	5.97	332	30	18.42	33.73	5.35	24.21	372	0.11
59	14.76	33.51	5.56	306	50	15.90	33.51	5.96	24.66	329	0.18
68	13.51	33.46	5.69	285	75	12.80	33.48	4.93	25.28	270	0.26
77	12.62	33.48	4.83	267	100	11.17	33.51	4.62	25.60	239	0.32
95	11.32	33.49	4.75	243	150	10.65	34.16	1.68	26.21	182	0.43
118	10.84	33.81	2.80	211	200	10.21	34.39	1.17	26.46	158	0.51
146	10.69	34.13	1.74	185	250	9.68	34.45	0.78	26.60	145	0.59
191	10.31	34.36	1.28	162	300	8.64	34.36	0.92	26.70	135	0.66
254	9.64	34.45	0.76	144	400	6.99	34.31	0.79	26.90	116	0.80
349	7.51	34.28	1.03	125	500	6.39	34.36	0.48	27.02	105	0.91
466	6.58	34.35	0.51	108	600	5.77	34.40	0.38	27.13	94	1.02
634	5.58	34.41	0.35	91	700	5.20	34.43	0.35	27.23	85	1.11
839	4.56	34.49	0.43	74	800	4.72	34.48	0.40	27.32	77	1.20
1125	3.64	34.57	0.73	59	1000	3.78	34.56	0.68	27.48	61	1.35

120.70

STRANGER; October 21, 1955; 1734 GCT; 26°52.5'N, 117°10'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 11°.

0	18.9	33.75	5.48	381	0	18.9	33.75	5.48	24.12	381	0.00
10	18.96	33.75	5.28	382	10	18.96	33.75	5.28	24.10	382	0.04
24	18.30	33.64	5.40	375	20	18.93	33.75	5.26	24.10	382	0.08
55	14.44	33.49	5.84	302	30	17.20	33.58	5.60	24.40	354	0.11
64	-	33.47	5.62	-	50	14.83	33.50	5.84	24.87	309	0.18
74	13.20	33.58	5.37	270	75	13.18	33.58	5.36	25.28	270	0.25
89	11.43	33.46	4.67	247	100	11.00	33.59	3.47	25.70	230	0.32
107	10.86	33.82	2.76	211	150	10.74	34.20	1.52	26.22	181	0.42
131	10.73	34.04	1.85	192	200	10.73	34.50	0.91	26.45	158	0.50
159	10.75	34.27	1.35	176	250	10.25	34.52	0.63	26.56	149	0.58
210	10.68	34.51	0.80	157	300	9.69	34.53	0.47	26.65	140	0.66
284	9.84	34.52	0.55	143	400	9.03	34.60	0.19	26.82	124	0.78
388	9.16	34.60	0.19	126	500	7.74	34.50	0.21	26.94	112	0.92
522	7.50	34.49	0.21	110	600	6.60	34.45	0.25	27.06	101	1.03
704	5.52	34.43	0.29	89	700	5.57	34.43	0.27	27.18	90	1.13
928	4.49	34.50	0.43	73	800	4.98	34.46	0.34	27.27	81	1.22
1224	3.60	34.59	0.75	57	1000	4.26	34.52	0.50	27.40	68	1.39

120.80

STRANGER; October 21, 1955; 1215 GCT; 26°37'N, 117°50'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	18.9	33.75	5.04	381	0	18.9	33.75	5.04	24.12	381	0.00
9	18.90	33.75	5.91u	381	10	18.90	33.75	4.92	24.12	381	0.04
23	18.92	33.77	4.71	379	20	18.92	33.77	4.80	24.13	379	0.08
53	15.77	33.64	6.07	318	30	18.91	33.77	4.71	24.14	379	0.11
63	14.74	33.62	5.65	298	50	16.26	33.66	5.88	24.67	328	0.18
73	14.32	33.66	5.66	287	75	14.27	33.66	5.64	25.12	285	0.26
86	13.48	33.65	5.37	271	100	12.37	33.56	5.15	25.42	257	0.33
105	12.05	33.53	5.05	253	150	10.87	34.19	1.72	26.19	184	0.44
128	11.16	33.81	2.59	217	200	10.92	34.61	0.52	26.51	153	0.53
157	10.82	34.23	1.43	180	250	10.29	34.63	0.37	26.64	141	0.60
209	10.93	34.63	0.46	152	300	9.44	34.58	0.32	26.74	131	0.67
284	9.70	34.60	0.35	134	400	8.17	34.51	0.17	26.89	117	0.80
387	8.33	34.52	0.17	119	500	7.00	34.48	0.23	27.03	104	0.92
524	6.75	34.47	0.24	101	600	6.11	34.46	0.25	27.13	94	1.02
708	5.32	34.45	0.28	85	700	5.40	34.45	0.26	27.22	86	1.12
936	4.33	34.53	0.44	78	800	4.84	34.48	0.34	27.30	78	1.21
1237	3.45	34.60	0.47u	55	1000	4.13	34.55		27.44	65	1.37

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

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STRANGER; October 21, 1955; 0657 GCT; 26°15'N, 118°28'W; sounding 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.

120.90

0	20.2	34.11	5.10	387	0	20.2	34.11	5.10	24.05	387	0.00
10	20.28	34.19	4.99	384	10	20.28	34.19	4.99	24.09	384	0.04
25	19.79	34.01	5.08	384	20	20.27	34.19	4.99	24.09	384	0.08
50	17.54	33.74	5.59	350	30	19.26	33.93	5.18	24.16	377	0.12
60	16.61	33.70	5.66	332	50	17.54	33.74	5.59	24.44	350	0.19
69	15.85	33.69	5.77	316	75	15.54	33.69	5.71	24.86	310	0.27
80	15.32	33.69	5.68	305	100	14.17	33.64	5.42	25.12	285	0.35
100	14.17	33.64	5.42	285	150	10.07	33.65	3.87	25.90	211	0.47
123	12.22	33.49	4.69	259	200	9.37	34.07	2.48	26.35	168	0.57
151	10.02	33.66	3.83	209	250	9.04	34.28	1.87	26.56	148	0.65
199	9.39	34.07	2.49	168	300	8.81	34.43	1.13	26.72	133	0.72
267	8.95	34.34	1.63	141	400	8.11	34.59	0.20	26.96	110	0.85
366	8.46	34.61	0.20	114	500	6.73	34.51	0.19	27.10	98	0.96
490	6.86	34.52	0.19	99	600	5.65	34.48	0.26	27.21	87	1.06
666	5.19	34.48	0.31	82	700	5.00	34.50	0.35	27.30	78	1.15
881	4.40	34.60	0.42	64	800	4.63	34.56	0.39	27.38	70	1.23
1179	3.62	34.61	0.78	56	1000	4.03	34.61	0.53	27.49	60	1.37

STRANGER; October 20, 1955; 0617 GCT; 27°27'N, 114°40'W; sounding, 39 fm; wind, 360°, force 2; weather, clear; sea, slight; wire angle, 06°.

123.37

0	18.64	33.75	5.56	375	0	18.64	33.75	5.56	24.18	375	0.00
10	18.62	33.76	5.28	374	10	18.62	33.76	5.28	24.19	374	0.04
22	15.38	33.58	6.23	314	20	15.90	33.60	6.12	24.72	324	0.07
27	14.57	33.55	6.32	300	30	13.64	33.54	5.91	25.15	282	0.10
32	12.89	33.53	5.42	268							

STRANGER; October 20, 1955; 0845 GCT; 27°18'N, 114°51.5'W; sounding, 315 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 03°.

123.40

0	18.6	33.78	5.54	373	0	18.6	33.78	5.54	24.20	373	0.00
10	18.64	33.75	5.57	375	10	18.64	33.75	5.57	24.18	375	0.04
30	14.40	33.57	5.89	295	20	16.20	33.62	5.67	24.67	328	0.07
40	13.42	33.57	6.36	276	30	14.40	33.57	5.89	25.02	295	0.10
49	11.77	33.59	4.37	243	50	11.65	33.60	4.25	25.60	240	0.16
59	10.66	33.68	3.50	218	75	10.10	33.91	2.58	26.11	192	0.21
69	10.31	33.87	2.80	198	100	9.22	33.90	3.25	26.25	178	0.26
79	9.98	33.94	2.57	187	150	9.54	34.27		26.48	156	0.34
89	9.60	33.96	2.74	180	200	8.52	34.17		26.57	148	0.42
98	9.24	33.90	3.25	179	250	8.55	34.32		26.68	137	0.49
117	9.34	34.09	2.45	166	300	8.38	34.40	0.72	26.76	129	0.56
140	9.72	34.28	1.77	158	400	7.56	34.43	0.37	26.91	115	0.68
160	9.28	34.25	2.97r	154	500	(7.02)	(34.45)	(0.19)	(27.01)	(106)	(0.80)
198	8.52	34.17	0.80u	148							
274	8.58	34.38	0.83	133							
375	7.77	34.42	0.40	118							
493	7.04	34.45	0.20	106							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

123.50

STRANGER; October 20, 1955; 1347 GCT; 26°57'N 115°35'W; sounding, 1990 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	17.5	33.73	5.78	350	0	17.5	33.73	5.78	24.44	350	0.00
9	17.52	33.71	5.76	352	10	17.52	33.71	5.76	24.42	352	0.04
28	16.23	33.72	5.45	322	20	17.51	33.71	5.76	24.42	352	0.07
38	15.84	33.71	5.51	315	30	16.19	33.72	5.47	24.74	321	0.10
47	13.05	33.57	5.11	268	50	12.64	33.56	4.99	25.37	262	0.16
57	11.81	33.55	4.57	248	75	10.56	33.71	3.05	25.87	214	0.22
66	10.88	33.66	3.33	223	100	9.40	33.82	3.08	26.15	187	0.27
75	10.56	33.71	3.05	214	150	9.79	34.26	1.50	26.43	160	0.36
84	10.08	33.82	2.69	198	200	9.42	34.41	0.97	26.61	144	0.44
93	9.38	33.77	3.25	190	250	9.22	34.47	0.62	26.69	136	0.51
115	9.86	34.09	2.17	174	300	8.70	34.49	0.39	26.79	127	0.58
142	9.84	34.25	1.55	162	400	7.40	34.42	0.32	26.93	113	0.70
187	9.52	34.38	1.07	147	500	6.39	34.41	0.30	27.06	101	0.81
241	9.28	34.47	0.62	137							
337	8.28	34.48	0.32	122							
448	6.77	34.39	0.32	107							
567	6.08	34.47	0.24	93							

123.60

STRANGER; October 20, 1955; 1812 GCT; 26°39'N, 116°08.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	18.5	33.78	5.50	369	0	18.5	33.78	5.50	24.24	369	0.00
10	18.45	33.70	5.51	374	10	18.45	33.70	5.51	24.19	374	0.04
29	15.25	33.51	5.96	317	20	18.42	33.70	5.52	24.19	374	0.08
39	12.81	33.49	4.72	270	30	15.00	33.50	5.91	24.84	312	0.11
49	12.22	33.64	3.47	248	50	12.10	33.66	3.42	25.55	244	0.16
58	10.97	33.73	3.33	219	75	10.34	33.91	2.58	26.06	195	0.22
67	10.05	33.68	2.88	208	100	10.26	34.11	1.80	26.24	179	0.27
76	10.34	33.93	2.58	194	150	9.89	34.25	1.60	26.41	163	0.35
85	10.30	33.98	2.11	190	200	10.72	34.66	0.40	26.58	146	0.43
94	10.29	34.02	1.90	186	250	9.64	34.52	0.49	26.66	139	0.51
118	10.20	34.14	1.74	176	300	8.70	34.44	0.52	26.75	130	0.58
146	9.88	34.24	1.62a)	164	400	7.44	34.41	0.49	26.92	114	0.70
192	10.82	34.67	0.40a)	148	500	6.46	34.42	0.38	27.06	101	0.81
249	9.64	34.52	0.49	139	600	(5.43)	(34.42)	(0.35)	(27.19)	(89)	(0.92)
349	8.00	34.41	0.55	122							
464	6.80	34.42	0.41	104							
587	5.59	34.42	0.35	90							

127.34

STRANGER; October 19, 1955; 0855 GCT; 26°55'N, 114°06'W; sounding, 41 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 00°.

0	19.24	33.78	5.36	387	0	19.24	33.78	5.36	24.05	387	0.00
10	17.97	33.68	5.67	364	10	17.97	33.68	5.67	24.29	364	0.04
15	16.99	33.62	6.10	346	20	16.31	33.57	6.49	24.60	335	0.07
20	16.31	33.57	6.49	335	30	14.33	33.49	5.85	24.97	300	0.10
25	14.53	33.47	6.54	325	50	11.72	33.48	5.15	25.48	251	0.16
30	14.33	33.49	5.85	300							
35	12.96	33.47	5.36	274							
40	12.30	33.52	5.23	258							
50	11.72	33.48	5.15	251							

a) Oxygen samples at 146 and 192 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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STRANGER; October 19, 1955; 0522 GCT; 26°41.5'N, 114°31.5'W; sounding, 1700 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 15°.

127.40

0	19.4	33.78	5.48	391	0	19.4	33.78	5.48	24.01	391	0.00
9	19.42	33.80	5.45	390	10	19.42	33.80	5.45	24.02	390	0.04
28	19.43	33.80	5.45	390	20	19.43	33.80	5.45	24.02	390	0.08
38	17.78	33.63	5.93	363	30	19.43	33.80	5.45	24.02	390	0.12
47	14.66	33.57	5.74	300	50	14.09	33.54	5.88	25.06	290	0.18
56	13.16	33.49	6.13	276	75	11.22	33.55	2.92	25.63	237	0.25
65	12.28	33.55	3.69	256	100	10.36	33.85	1.37	26.01	200	0.31
74	11.24	33.55	2.96	238	150	8.82	34.03	1.36	26.41	163	0.40
84	11.00	33.63	2.09	227	200	9.60	34.41	0.78	26.58	146	0.48
93	10.50	33.77	2.94r	208	250	9.11	34.44	0.65	26.69	136	0.55
116	10.07	34.06	1.08	180	300	8.34	34.39	0.65	26.77	129	0.62
143	8.80	33.99	6.21r	166	400	7.15	34.42	0.40	26.96	110	0.74
188	9.60	34.38	4.11r	149	500	6.44	34.47	0.28	27.09	98	0.85
243	9.21	34.45	0.65	138							
340	7.72	34.36	0.65	122							
454	6.79	34.46	0.28	102							
573	5.95	34.47	0.26	91							

STRANGER; October 19, 1955; 0019 GCT; 26°24'N, 115°07'W; sounding, 2000+ fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 06°.

127.50

0	19.3	33.77	5.63	389	0	19.3	33.77	5.63	24.03	389	0.00
10	19.32	33.75	5.73	391	10	19.32	33.75	5.73	24.01	391	0.04
30	17.78	33.68	5.96	360	20	19.30	33.75	5.74	24.01	391	0.08
40	14.74	33.63	5.67	297	30	17.78	33.68	5.96	24.34	360	0.12
50	13.20	33.59	4.85	270	50	13.20	33.59	4.85	25.28	270	0.18
60	12.07	33.59	3.83	249	75	11.25	33.70	3.14	25.73	227	0.24
69	11.65	33.70	3.10	233	100	10.42	33.89	2.41	26.03	198	0.30
80	10.96	33.69	3.19	222	150	9.36	34.14	2.23	26.40	163	0.39
90	10.60	33.77	2.81	210	200	9.52	34.41	0.93	26.59	145	0.47
99	10.42	33.87	2.48	200	250	8.95	34.42	0.88	26.70	135	0.54
123	10.28	34.07	2.08	183	300	8.34	34.42	0.54	26.79	127	0.60
151	9.36	34.14	2.25	163	400	7.38	34.43	0.21	26.94	113	0.73
198	9.56	34.40	0.93	146	500	6.48	34.44	0.26	27.07	100	0.84
256	8.84	34.42	0.87	134	600	(5.70)	(34.44)	(0.26)	(27.17)	(90)	(0.94)
356	7.78	34.42	0.21	119							
472	6.69	34.44	0.25	103							
596	5.77	34.44	0.26	91							

STRANGER; October 18, 1955; 1938, 1953 GCT; 26°08'N, 115°37'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 05°, 05°.

127.60

0	19.5	33.78	5.43	393	0	19.5	33.78	5.43	23.99	393	0.00
10	19.48	33.80	5.14	392	10	19.48	33.80	5.14	24.00	392	0.04
30	17.35	33.68	5.90	350	20	19.45	33.80	5.16	24.00	392	0.08
40	14.61	33.49	5.44	305	30	17.35	33.68	5.90	24.44	350	0.12
49	13.43	33.51	4.77	280	50	13.40	33.51	4.72	25.19	279	0.18
60	12.71	33.59	2.97r	260	75	11.50	33.59	3.84	25.61	239	0.24
					100	10.43	33.88	2.60	26.02	199	0.30
70	11.90	33.60	3.90	245	150	9.62	34.18	2.05	26.40	164	0.39
80	11.10	33.58	3.79	233	200	9.56	34.36	1.26	26.55	149	0.47
89	10.60	33.72	3.11	214	250	9.21	34.41	0.88	26.64	140	0.54
99	10.43	33.86	2.66	201	300	8.57	34.39	0.77	26.73	132	0.62
123	10.28	34.09	1.94	181	400	7.32	34.41	0.41	26.93	113	0.74
152	9.60	34.19	2.05	163	500	6.75	34.45	0.17	27.05	102	0.86
200	9.56	34.36	1.26	149	600	6.05	34.47	0.17	27.16	92	0.96
259	9.18	34.41	0.84	140							
360	7.62	34.38	0.62	120							
477	6.87	34.45	0.17	104							
600a)	6.05	34.47	0.17	92							

a) Alternate depth, 577 meters.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

130.30

STRANGER; October 17, 1955; 1948 GCT; 26°29.5'N, 113°28'W; sounding, 41 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	16.61	33.96	7.19	313	0	16.61	33.96	7.19	24.83	313	0.00
10	14.69	33.83	5.68	282	10	14.69	33.83	5.68	25.16	282	0.03
15	13.46	33.76	4.66	262	20	11.18	33.49	4.46	25.59	240	0.06
20	11.18	33.49	4.46	240	30	11.98	33.84	2.77	25.72	228	0.08
25	11.59	33.69	3.45	233	50	13.44	33.43	0.35	25.88	213	0.12
30	11.98	33.84	2.77	228							
35	12.86	34.16	1.44	221							
40	13.34	34.35	0.57	217							
50	13.44	33.43	0.35	213							

130.35

STRANGER; October 17, 1955; 2241 GCT; 26°19'N, 113°48'W; sounding, 560 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 13°.

0	19.4	33.76	5.36	392	0	19.4	33.76	5.36	23.99	392	0.00
10	19.34	33.75	4.89	392	10	19.34	33.75	4.89	24.00	392	0.04
28	16.54	33.55	6.13	342	20	19.30	33.74	4.90	24.01	391	0.08
43	14.94	33.57	5.89	306	30	16.38	33.55	6.12	24.56	338	0.12
58	14.02	33.62	5.82	284	50	14.89	33.64	5.88	24.98	298	0.18
67	12.88	33.46	5.45	274	75	11.90	33.46	5.27	25.43	256	0.25
76	11.77	33.46	5.22	253	100	13.13	34.38	0.73	25.91	210	0.31
90	10.78	33.54	4.60	230	150	11.62	34.46	0.89	26.26	177	0.40
99	13.15	34.38	0.73	211	200	11.09	34.59	0.59	26.46	158	0.49
113	12.28	34.36	0.71	196	250	10.42	34.60	0.50	26.59	146	0.57
140	11.66	34.44	0.94	179	300	9.72	34.58	0.37	26.69	136	0.64
167	11.56	34.52	0.67	171	400	7.98	34.47	0.35	26.88	188	0.77
223	10.77	34.60	0.58	151	500	6.80	34.45	0.32	27.03	104	0.89
287	9.94	34.59	0.37	139	600	5.87	34.46	0.30	27.17	91	0.99
399	8.00	34.47	0.35	118							
515	6.66	34.45	0.32	102							
669	5.25	34.48	0.28	82							

130.40

STRANGER; October 18, 1955; 0205 GCT; 26°08'N, 114°06'W; sounding, 1200 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 23°.

0	19.5	33.80	6.15	392	0	19.5	33.80	6.15	24.00	392	0.00
8	19.48	33.82	5.61	390	10	19.48	33.82	5.58	24.02	390	0.04
22	19.49	33.80	5.32	392	20	19.48	33.80	5.36	24.00	392	0.08
46	17.52	33.75	5.77	349	30	19.47	33.80	5.36	24.00	392	0.12
54	16.64	33.66	5.97	336	50	17.08	33.71	5.86	24.52	342	0.19
64	15.74	33.60	6.06	321	75	14.62	33.56	5.98	24.97	300	0.27
73	14.86	33.58	5.98	303	100	12.40	33.49	5.52	25.36	262	0.34
89	13.40	33.49	5.93	281	150	11.22	34.11	2.21	26.06	196	0.46
109	11.72	33.51	4.75	248	200	10.37	34.38	1.43	26.43	161	0.55
140	11.34	33.98	2.81	208	250	9.49	34.44	1.12	26.62	143	0.63
178	10.78	34.35	1.51	170	300	8.91	34.48	0.54	26.74	131	0.70
237	9.68	34.42	1.28	147	400	7.62	34.44	0.37	26.90	116	0.83
325	8.66	34.49	0.44	126							
438	7.17	34.42	0.35	110							
803	4.89	34.51	0.33	76							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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STRANGER; October 18, 1955; 0753 GCT; 25°46'N, 114°43'W; sounding, 1960 fm; wind, 310°, force 4;
weather, missing; sea, moderate; wire angle, 15°.

130.50

0	21.0	34.13	5.18	406	0	21.0	34.13	5.18	23.85	406	0.00
9	21.00	34.14	5.16	405	10	21.00	34.14	5.16	23.86	405	0.04
23	21.02	34.13	5.14	406	20	21.02	34.13	5.16	23.85	406	0.08
53	19.77	33.99	5.55	385	30	21.03	34.13	5.16	23.85	406	0.12
62	17.99	33.78	5.91	358	50	21.03	34.13	5.16	23.85	406	0.20
72	16.89	33.69	6.04	339	75	16.62	33.68	5.96	24.61	334	0.30
85	15.74	33.65	5.59	317	100	13.60	33.48	5.92	25.11	286	0.38
104	13.00	33.44	5.96	277	150	10.94	33.96	2.71	26.00	201	0.50
128	10.94	33.58	4.09	230	200	10.78	34.35	1.33	26.33	170	0.59
154	10.94	34.04	2.43	196	250	10.72	34.55	0.72	26.49	155	0.67
205	10.76	34.36	1.28	169	300	10.38	34.59	0.49	26.58	146	0.75
276	10.72	34.60	0.49	151	400	8.58	34.47	0.54	26.79	126	0.89
376	8.89	34.47	0.61	131	500	7.43	34.49	0.23	26.98	109	1.02
508	7.39	34.49	0.21	108	600	6.40	34.48	0.22	27.11	96	1.12
686	5.70	34.47	0.29	88	700	5.59	34.47	0.30	27.21	87	1.22
907	4.48	34.51	0.56	72	800	5.01	34.48	0.44	27.29	80	1.32
1201	3.57	34.57	0.81	58	1000	4.20	34.53	0.64	27.41	68	1.48

STRANGER; October 18, 1955; 1335 GCT; 25°25'N, 115°18'W; sounding, 2000+ fm; wind, 320°, force 4;
weather, cloudy; sea, moderate; wire angle, 04°.

130.60

0	20.8	34.11	5.09	402	0	20.8	34.11	5.09	23.89	402	0.00
10	20.82	34.11	4.90	403	10	20.82	34.11	4.90	23.88	403	0.04
25	20.82	34.10	5.19	404	20	20.82	34.10	5.19	23.87	404	0.08
55	19.90	34.14	5.45	378	30	20.82	34.10	5.19	23.87	404	0.12
65	17.60	33.69	5.75	355	50	20.82	34.10	5.19	23.87	404	0.20
74	17.01	33.69	5.82	342	75	17.00	33.69	5.82	24.53	341	0.30
89	15.79	33.58	5.83	323	100	14.46	33.50	5.65	24.95	302	0.38
110	12.94	33.46	5.26	274	150	10.79	33.83	3.00	25.92	209	0.50
134	11.20	33.66	3.77	229	200	10.70	34.36	1.20	26.34	169	0.60
162	10.62	-	2.43	-	250	10.25	34.52	0.73	26.56	149	0.68
214	10.71	34.43	1.09	163	300	9.54	34.52	0.57	26.69	136	0.76
290	9.70	34.53	0.60	139	400	8.10	34.46	0.40	26.86	120	0.89
395	8.18	34.46	0.41	121	500	7.11	34.48	0.28	27.01	105	1.01
533	6.83	34.48	0.27	102	600	6.30	34.47	0.28	27.11	96	1.11
719	5.40	34.45	0.38	87	700	5.58	34.45	0.37	27.19	88	1.21
948	4.30	34.51	0.60	70	800	4.92	34.47	0.48	27.28	80	1.30
1249	3.43	34.56	0.82	58	1000	4.10	34.52	0.66	27.42	67	1.47

STRANGER; October 17, 1955; 1431 GCT; 26°04.5'N, 112°48'W; sounding, 43 fm; wind, 300°, force 5;
weather, clear; sea, rough; wire angle, 05°.

133.25

0	16.33	33.82	5.88	318	0	16.33	33.82	5.88	24.78	318	0.00
10	16.35	33.82	5.86	318	10	16.35	33.82	5.86	24.78	318	0.03
15	16.22	33.78	5.85	318	20	14.69	33.66	5.78	25.02	294	0.06
20	14.69	33.66	5.78	294	30	12.24	33.53	4.73	25.42	257	0.09
25	12.76	33.51	4.96	267	50	14.10	34.45	1.04	25.76	224	0.14
30	12.24	33.53	4.73	257							
35	11.76	33.58	4.22	244							
40	12.09	33.75	3.59	238							
50	14.10	34.45	1.04	224							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{30}^{-5}	Z	T	S	O ₂	σ_t	δT_{30}^{-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

133.30

STRANGER; October 17, 1955; 1110 GCT; 25°53'N, 113°07'W; sounding, 106 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 08°.

0	17.36	34.09	6.07	320	0	17.36	34.09	6.07	24.75	320	0.00
10	17.36	34.12	5.62	318	10	17.36	34.12	5.62	24.78	318	0.03
15	17.30	34.11	5.14	317	20	17.28	34.11	3.80	24.79	316	0.06
19	17.29	34.11	3.81	317	30	17.14	34.13	3.37	24.84	312	0.10
24	17.22	34.14	3.67	314	50	12.42	33.76	3.10	25.57	243	0.15
29	17.17	34.14	3.37	312	75	12.15	34.08	2.53	25.88	213	0.21
34	15.49	33.86	3.18	296	100	13.36	34.72	0.73	26.12	190	0.26
44	13.46	33.78	3.14	261	150	12.24	34.69	0.38	26.32	171	0.35
54	12.18	33.76	2.99	238							
64	12.22	33.94	2.84	226							
80	12.12	-	-	-							
99	13.37	34.70	-	192							
119	13.10	34.76	0.32	182							
153	12.17	34.68	0.39	170							

137.23

STRANGER; October 16, 1955; 2210 GCT; 25°33.5'N, 112°20'W; sounding, 43 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 05°.

0	19.38	34.10	4.76	367	0	19.38	34.10	4.76	24.26	367	0.00
10	19.35	34.11	5.06	366	10	19.35	34.11	5.06	24.27	366	0.04
15	19.22	34.10	5.04	364	20	18.50	33.99	4.73	24.40	354	0.07
20	18.50	33.99	4.73	354	30	14.41	33.53	5.44	24.98	298	0.11
25	18.16	33.95	5.26	349	50	13.46	34.09	2.92	25.62	238	0.16
30	14.41	33.53	5.44	298							
35	13.72	33.55	5.23	283							
40	13.64	33.68	4.33	272							
50	13.46	34.09	2.92	238							

137.30

STRANGER; October 17, 1955; 0312 GCT; 25°19'N, 112°48.5'W; sounding, 65 fm; wind, 310°, force 6; weather, clear; sea, very rough; wire angle, 08°.

0	20.18	34.14	4.20	384	0	20.18	34.14	4.20	24.08	384	0.00
10	20.20	34.14	4.41	385	10	20.20	34.14	4.41	24.08	385	0.04
15	20.18	34.14	4.40	384	20	20.15	34.13	5.09	24.08	384	0.08
20	20.15	34.13	5.09	384	30	14.45	33.62	5.26	25.05	292	0.11
25	16.18	33.73	5.22	320	50	13.55	33.92	3.53	25.46	253	0.16
30	14.45	33.62	5.26	292	75	13.43	34.44	1.51	25.89	212	0.22
35	13.46	33.59	4.89	275	100	(12.98)	(34.53)	(1.10)	(26.05)	(197)	(0.28)
45	13.76	33.85	3.89	262							
54	13.42	33.96	3.22	247							
64	13.62	34.33	2.01	224							
79	13.36	34.46	1.36	209							
98	13.00	34.53	1.10	197							

80.55a)

BLACK DOUGLAS; November 12, 1955; 2013 GCT; 34°19'N, 120°48'W; sounding, 420 fm; wind, 310°, force 5; weather, clear; sea, very rough; wire angle, 18°.

0	13.4	-		0	13.4	(33.44)
10	13.38	33.44		10	13.38	33.44
71	9.9	33.44		20	13.3	(33.44)
143	8.54	33.99		30	12.6	(33.44)
214	8.1	34.14		50	10.2	(33.44)
285	7.86	34.22		75	9.8	33.45
				100	9.4	33.59
				150	8.5	34.02
				200	8.1	34.12
				250	8.0	34.19

- a) Because the same station pattern was repeated several times on Cruise 5511, the stations are grouped by tracks. The stations of each track are presented in numerical order. As a result, stations of the same number will not appear together.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

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BLACK DOUGLAS; November 11, 1955; 2248 GCT; 34°16.5'N, 120°15'W; sounding, 260 fm; wind, 270°, force 3; weather, cloudy; sea, very rough; wire angle, 08°.

81.49

0	15.7	-			0	15.7	(33.59)				
10	15.66	33.59			10	15.66	33.59				
74	10.0	33.62			20	15.0	(33.59)				
148	8.92	33.93			30	13.8	(33.59)				
223	8.4	34.11			50	12.0	(33.60)				
297	8.06	34.22			75	10.0	33.62				
					100	9.5	33.70				
					150	8.9	33.94				
					200	8.5	34.07				
					250	8.3	34.15				
					300	(8.0)	(34.22)				

BLACK DOUGLAS; November 11, 1955; 0708 GCT; 34°13.5'N, 119°51'W; sounding, 250 fm; wind, 360°, force 1; weather, fog; sea, smooth; wire angle, 11°.

82.45

0	15.9	-			0	15.9	(33.57)				
10	15.54	33.57			10	15.54	33.57				
74	10.4	33.57			20	15.1	(33.57)				
147	8.78	33.96			30	14.1	(33.57)				
221	8.4	34.13			50	11.8	(33.57)				
294	8.16	34.20			75	10.4	33.57				
					100	9.3	33.67				
					150	8.7	33.97				
					200	8.5	34.09				
					250	8.3	34.17				
					300	(8.1)	(34.21)				

PAOLINA-T; November 9, 1955; 1725 GCT; 34°12.5'N, 119°20.5'W; sounding, 12 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

83.40

0	15.7	-			0	15.7	(33.66)				
10	15.61	33.66			10	15.61	33.66				
15	15.59	33.58			20	15.48	33.58				
20	15.48	33.58									

PAOLINA-T; November 10, 1955; 1125 GCT; 33°32.5'N, 120°49'W; sounding, 1630 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 09°.

83.60

0	15.2	-			0	15.2	(33.63)				
10	15.24	33.62			10	15.24	33.62				
73	9.9	33.57			20	15.2	(33.61)				
148	8.64	33.94			30	15.2	(33.60)				
222	7.8	34.11			50	12.7	(33.58)				
296	7.19	34.19			75	9.8	33.57				
					100	9.3	33.67				
					150	8.6	33.95				
					200	8.0	34.07				
					250	7.5	34.14				
					300	(7.1)	(34.19)				

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

85.39

PAOLINA-T; November 11, 1955; 1729 GCT; 33°58.5'N, 119°06.5'W; sounding, 370 fm; wind, 100°, force 3; weather, cloudy; sea, moderate; wire angle, 07°.

0	16.2	-			0	16.2	(33.57)					
10	16.24	33.57			10	16.24	33.57					
74	10.2	33.59			20	16.2	(33.57)					
149	8.94	33.93			30	14.1	(33.57)					
223	8.4	34.05			50	11.6	(33.58)					
298	8.02	34.19			75	10.2	33.59					
					100	9.6	33.68					
					150	8.9	33.93					
					200	8.5	34.02					
					250	8.3	34.10					
					300	(8.0)	(34.19)					

85.50

PAOLINA-T; November 10, 1955; 2229 GCT; 33°38'N, 119°53'W; sounding, 125 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 02°.

0	15.5	-			0	15.5	(33.53)					
10	14.20	33.54			10	14.20	33.54					
75	9.5	33.69			20	13.8	(33.56)					
150	8.41	34.05			30	13.5	(33.57)					
200	8.34	34.09			50	12.8	(33.62)					
					75	9.5	33.69					
					100	9.0	33.81					
					150	8.41	34.05					
					200	8.34	34.09					

85.60

PAOLINA-T; November 10, 1955; 1455 GCT; 33°16.5'N, 120°33'W; sounding, 850 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	15.6	-			0	15.6	(33.58)					
10	15.57	33.58			10	15.57	33.58					
74	10.2	33.58			20	15.5	(33.58)					
148	8.22	34.02			30	15.5	(33.58)					
223	7.5	34.07			50	11.9	(33.58)					
297	6.46	34.11			75	10.2	33.58					
					100	9.3	33.69					
					150	8.2	34.02					
					200	7.7	34.06					
					250	7.1	34.08					
					300	(6.4)	(34.11)					

87.35

PAOLINA-T; November 11, 1955; 2212 GCT; 33°50'N, 118°41.5'W; sounding, 350+ fm; wind, 100°, force 3; weather, cloudy; sea, moderate; wire angle, 12°.

0	16.0	-			0	16.0	(33.55)					
10	16.04	33.55			10	16.04	33.55					
73	10.6	33.55			20	14.8	(33.55)					
147	9.04	33.89			30	13.4	(33.55)					
220	8.5	34.14			50	11.5	(33.55)					
293	8.14	34.18			75	10.5	33.55					
					100	9.8	33.64					
					150	9.0	33.90					
					200	8.6	34.09					
					250	8.3	34.17					
					300	(8.1)	(34.18)					

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δ_{T3}^{-5}	Z	T	S	O ₂	σ_t	δ_{T3}^{-5}	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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PAOLINA-T; November 12, 1955; 0553 GCT; 33°30.5'N, 119°21'W; sounding, 940 fm; wind, 050°, force 1; weather, clear; sea, moderate; wire angle, 00°.

87.45

0	15.6u	-			0	15.9	(33.65)				
10	15.90	33.62			10	15.90	33.62				
75	11.1	33.48			20	15.9	(33.59)				
150	8.78	33.83			30	15.5	(33.57)				
225	8.1	34.04			50	12.8	(33.51)				
300	7.96	34.14			75	11.1	33.48				
					100	10.1	33.56				
					150	8.78	33.83				
					200	8.3	33.98				
					250	8.1	34.08				
					300	7.96	34.14				

PAOLINA-T; November 12, 1955; 1818 GCT; 33°05'N, 120°21'W; sounding, 650 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 09°.

87.60

0	15.6	-			0	15.6	(33.68)				
10	15.61	33.64			10	15.61	33.64				
74	10.6	33.48			20	15.6	(33.61)				
148	8.26	34.02			30	15.6	(33.58)				
222	7.2	34.06			50	13.1	(33.52)				
296	6.66	34.09			75	10.6	33.48				
					100	9.6	34.61				
					150	8.2	34.03				
					200	7.5	34.05				
					250	7.0	34.07				
					300	(6.6)	(34.09)				

PAOLINA-T; November 14, 1955; 2125 GCT; 33°28'N, 117°45'W; sounding, 42 fm; wind, 280°, force 4; weather, partly cloudy; sea, very rough; wire angle, 12°.

90.28

0	16.3	-			0	16.3	(33.65)				
10	16.25	33.65			10	16.25	33.65				
24	16.2	33.64			20	16.2	33.65				
44	12.54	33.51			30	16.2	33.61				
60	11.68	33.48			50	12.1	33.49				

PAOLINA-T; November 13, 1955; 1312 GCT; 33°04.5'N, 118°35'W; sounding, 480 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

90.40

0	16.5	-			0	16.5	(33.60)				
10	16.50	33.60			10	16.50	33.60				
75	10.0	33.58			20	14.8	(33.60)				
150	8.68	34.02			30	13.0	(33.59)				
225	8.2	34.10			50	11.2	(33.59)				
301	7.89	34.21			75	10.0	33.58				
					100	9.3	33.69				
					150	8.68	34.02				
					200	8.3	34.08				
					250	8.1	34.13				
					300	7.9	34.21				

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

90.55

PAOLINA-T; November 13, 1955; 0053 GCT; 32°34'N, 119°38'W; sounding, 350 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 00°.

0	16.1	-			0	16.1	(33.67)				
10	16.11	33.64			10	16.11	33.64				
75	10.5	33.49			20	16.1	(33.61)				
150	8.42	33.91			30	15.2	(33.58)				
225	7.5	34.05			50	12.0	(33.52)				
300	6.84	34.12			75	10.5	33.49				
					100	9.5	33.59				
					150	8.42	33.91				
					200	7.7	34.02				
					250	7.2	34.08				
					300	6.84	34.12				

83.40

PAOLINA-T; November 16, 1955; 1509 GCT; 34°13'N, 119°21.5'W; sounding, 11 fm; wind, 020°, force 3; weather, cloudy; sea, slight; wire angle, 00°.

0	13.4	-			0	13.4					
10	12.66	33.55			10	12.66	33.55				
20	12.2	-			20	12.2					

83.60

PAOLINA-T; November 17, 1955; 0805 GCT; 33°40.5'N, 120°43.5'W; sounding, 820 fm; wind, 240°, force 3; weather, rain; sea, moderate; wire angle, 05°.

0	14.0	-			0	14.0	(33.57)				
10	13.90	33.57			10	13.90	33.57				
75	10.3	33.56			20	13.8	(33.57)				
149	8.30	33.97			30	13.7	(33.57)				
224	7.6	34.09			50	12.8	(33.56)				
300	7.28	34.17			75	10.3	33.56				
					100	9.3	33.65				
					150	8.3	33.97				
					200	7.8	34.06				
					250	7.5	34.12				
					300	7.28	34.17				

85.39

PAOLINA-T; November 18, 1955; 0255 GCT; 33°59'N, 119°06'W; sounding, 280 fm; wind, 290°, force 2; weather, partly cloudy; sea, moderate; wire angle, 16°.

0	15.7	-			0	15.7	(33.62)				
10	15.68	33.61			10	15.68	33.61				
72	10.0	33.59			20	15.7	(33.61)				
144	9.02	33.91			30	15.6	(33.60)				
217	8.8	34.05			50	11.3	(33.59)				
288	8.36	34.18			75	9.9	33.60				
					100	9.2	33.70				
					150	9.0	33.92				
					200	8.9	34.02				
					250	8.6	34.11				

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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PAOLINA-T; November 17, 1955; 1840 GCT; 33°36'N, 119°48'W; sounding, 230 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 06°.

85.50

0	12.9u	-			0	13.8	(33.49)				
10	13.83	33.50			10	13.83	33.50				
75	9.8	33.70			20	13.8	(33.52)				
149	8.52	34.08			30	13.8	(33.54)				
224	8.0	34.22			50	13.3	(33.60)				
298	7.48	34.25			75	9.8	33.70				
					100	9.0	33.82				
					150	8.5	34.08				
					200	8.2	34.19				
					250	7.8	34.23				
					300	(7.4)	(34.25)				

PAOLINA-T; November 17, 1955; 1119 GCT; 33°24'N, 120°32.5'W; sounding, 730 fm; wind, 230°, force 3; weather, rain; sea, moderate; wire angle, 08°.

85.60

0	14.8	-			0	14.8	(33.64)				
10	14.78	33.62			10	14.78	33.62				
74	10.1	33.51			20	14.8	(33.60)				
150	8.47	33.93			30	14.7	(33.58)				
223	7.7	34.03			50	13.2	(33.53)				
298	7.05	34.12			75	10.1	33.51				
					100	9.2	33.62				
					150	8.47	33.93				
					200	7.9	34.00				
					250	7.5	34.06				
					300	(7.0)	(34.13)				

PAOLINA-T; November 18, 1955; 0652 GCT; 33°49.5'N, 118°39'W; sounding, 450 fm; wind, 180°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°.

87.35

0	15.4	-			0	15.4	(33.63)				
10	15.54	33.62			10	15.54	33.62				
75	10.5	33.55			20	15.6	(33.61)				
150	9.14	33.81			30	12.5	(33.59)				
225	8.8	34.04			50	11.5	(33.57)				
300	8.31	34.14			75	10.5	33.55				
					100	9.5	33.61				
					150	9.14	33.81				
					200	8.9	33.98				
					250	8.6	34.08				
					300	8.31	34.14				

PAOLINA-T; November 18, 1955; 1429 GCT; 33°30.5'N, 119°19.5'W; sounding, 940 fm; wind, 090°, force 1; weather, partly cloudy; sea, moderate; wire angle, 03°.

87.45

0	14.2	-			0	14.2	(33.54)				
10	13.94	33.55			10	13.94	33.55				
75	10.1	33.63			20	13.8	(33.56)				
150	8.82	34.10			30	12.2	(33.57)				
226	8.2	34.17			50	10.7	(33.59)				
300	7.93	34.25			75	10.1	33.63				
					100	9.3	33.77				
					150	8.82	34.10				
					200	8.4	34.16				
					250	8.0	34.19				
					300	7.93	34.25				

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

87.60

PAOLINA-T; November 19, 1955; 0345 GCT; 33°00'N, 120°21'W; sounding, 450 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 06°.

0	14.5	-			0	14.5	(33.58)					
10	14.42	33.56			10	14.42	33.56					
75	10.8	33.46			20	14.4	(33.54)					
149	8.64	33.91			30	14.3	(33.52)					
225	7.5	34.05			50	11.5	(33.49)					
298	6.89	34.07			75	10.8	33.46					
					100	9.5	33.56					
					150	8.6	33.91					
					200	7.8	34.02					
					250	7.2	34.06					
					300	(6.8)	(34.07)					

90.28

PAOLINA-T; November 20, 1955; 0405 GCT; 33°27.5'N, 117°46.5'W; sounding, 320 fm; wind, 270°, force 1; weather, fog; sea, moderate; wire angle, 02°.

0	15.6	-			0	15.6	(33.50)					
10	15.30	33.51			10	15.30	33.51					
75	9.5	33.58			20	15.2	(33.52)					
150	9.16	33.91			30	12.8	(33.52)					
225	8.6	34.13			50	11.7	(33.54)					
300	7.98	34.19			75	9.5	33.58					
					100	9.2	33.68					
					150	9.16	33.91					
					200	8.7	34.08					
					250	8.0	34.16					
					300	7.98	34.19					

90.40

PAOLINA-T; November 19, 1955; 2012 GCT; 33°04.5'N, 118°35'W; sounding, 750 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	15.6	-			0	15.6	(33.59)					
10	15.19	33.59			10	15.19	33.59					
74	9.8	33.60			20	15.0	(33.59)					
148	8.86	33.86			30	14.9	(33.59)					
224	7.9	34.05			50	11.1	(33.59)					
298	7.54	34.20			75	9.7	33.60					
					100	9.2	33.67					
					150	8.8	33.87					
					200	8.2	34.00					
					250	7.7	34.11					
					300	(7.5)	(34.21)					

90.55

PAOLINA-T; November 19, 1955; 0959 GCT; 32°34.5'N, 119°37'W; sounding, 650 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°.

0	15.3	-			0	15.3	(33.67)					
10	15.29	33.64			10	15.29	33.64					
76	11.0	33.49			20	15.3	(33.61)					
151	8.39	34.94			30	15.3	(33.58)					
226	7.8	34.09			50	12.5	(33.53)					
301	6.74	34.14			75	11.1	(33.49)					
					100	9.4	33.59					
					150	8.4	33.94					
					200	8.0	34.06					
					250	7.5	34.11					
					300	6.8	34.14					

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
FIRST TRACK										
80.50-B	XI-12	0440	34°26.0'	120°28.0'	30	270°	3	clear	rough	14.56 33.58
80 ⁵ .47-B	11	2050	34°27.0'	120°09.0'	30	270°	2	overcast	slight	15.56 33.61
80 ⁵ .55-B	12	2240	34°09.5'	120°43.0'	400	320°	6	clear	very rough	13.14 33.65
81.51-B	12	0255	34°16.5'	120°24.5'	225	280°	3	clear	very rough	14.04 33.58
81 ⁵ .44-B	11	0855	34°23.5'	119°52.5'	30	120°	2	fog	slight	15.50 33.57
81 ⁵ .48-B	11	1910	34°16.0'	120°06.5'	310	300°	2	overcast	moderate	15.30 33.58
81 ⁵ .52-B	12	0050	34°06.0'	120°21.5'	40	280°	3	overcast	very rough	14.02 33.60
81 ⁵ .56-B	13	0000	34°00.0'	120°38.0'	700	320°	6	clear	very rough	13.32 33.57
82.42-P	9	1910	34°15.5'	119°35.5'	57	280°	2	partly cloudy	slight	15.72 33.58
82.44-P	9	2055	34°13.5'	119°46.5'	128	280°	2	partly cloudy	slight	14.99 33.60
82.47-P	9	2245	34°13.5'	120°01.0'	355	260°	3	partly cloudy	moderate	15.82 33.60
82.47-B	11	1030	34°15.0'	119°58.0'	310	090°	3	fog	slight	15.06 33.57
82.49-B	11	1730	34°05.0'	120°04.0'	28	270°	2	overcast	rough	13.52 33.59
82.52-B	13	0300	34°00.0'	120°18.5'	30	320°	5	clear	moderate	13.17 33.61
83.41-B	11	0100	34°12.0'	119°26.0'	30	190°	1	clear	slight	16.11 33.60
83.42-B	11	0000	34°07.5'	119°28.5'	120	180°	1	clear	slight	15.59 33.58
83.43-B	11	0230	34°08.0'	119°37.5'	150	180°	1	missing	smooth	15.30 33.58
83.46-B	11	0425	34°04.0'	119°49.5'	30	calm		fog	smooth	14.28 33.58

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S
83.48-P	XI-10	0215	33°57.5'	119°55.0'	98	340°	3	partly cloudy	slight	14.96 33.64
83.48-B	13	0655	33°58.0'	119°55.0'	90	350°	2	clear	moderate	12.09 33.35
83.51-P	10	0420	33°51.5'	120°08.0'	230	330°	4	clear	moderate	14.06 33.61
83.51-B	13	0425	33°52.0'	120°08.5'	110	310°	3	clear	moderate	13.90 33.57
83.52 ⁵ -P	10	0530	33°48.0'	120°13.5'	380	330°	4	clear	moderate	14.26 33.55
83.55-P	10	0730	33°43.5'	120°25.0'	820	330°	4	clear	moderate	14.73 33.58
83.57 ⁵ -P	10	0920	33°38.0'	120°36.0'	790	310°	4	clear	moderate	14.25 33.56
83 ⁵ .43-B	10	2245	34°02.5'	119°31.0'	30	180°	1	clear	slight	14.46a) 33.55
83 ⁵ .46-B	13	0850	33°57.0'	119°42.0'	32	320°	1	clear	moderate	14.79 33.58
84.40-B	10	2010	34°06.0'	119°15.0'	30	180°	1	clear	slight	16.32 33.62
84.43-B	13	1045	33°59.5'	119°29.0'	30	calm		clear	smooth	14.60 33.57
85.40-B	10	1830	33°57.0'	119°10.5'	400	120°	1	partly cloudy	smooth	16.24 33.61
85.40-P	11	1605	33°56.5'	119°11.0'	409	100°	3	overcast	moderate	14.89 33.57
85.42 ⁵ -P	11	0430	33°51.0'	119°19.0'	480	090°	2	clear	smooth	14.59 33.62
85.45-P	11	0230	33°46.5'	119°31.0'	1050	110°	2	clear	smooth	14.38 33.62
85.47 ⁵ -P	11	0020	33°42.0'	119°41.5'	900	calm		clear	smooth	15.10 33.64
85.52 ⁵ -P	10	2040	33°34.5'	120°03.5'	430	270°	1	partly cloudy	slight	15.10 33.64

a) Alternate value, 14.29°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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Station	Date	Time GCT	Latitude		Longitude		Sounding (fm)	Wind		Weather	Sea	10 Meters	
			North	West	North	West		Dir	Force			T	S
85.55-P	XI-10	1845	33°28.5'	120°13.5'	33°28.5'	120°13.5'	760	030°	1	partly cloudy	moderate	15.55	33.64
85.57 ⁵ -P	10	1650	33°22.5'	120°23.0'	33°22.5'	120°23.0'	580	310°	3	partly cloudy	moderate	15.84	33.65
85 ⁵ .36-B	10	1600	33°58.0'	118°52.5'	33°58.0'	118°52.5'	300	calm		partly cloudy	missing	15.72	33.75
86.33-B	10	1345	33°59.0'	118°34.5'	33°59.0'	118°34.5'	30	calm		clear	slight	15.94	33.65
87.33-B	10	1230	33°52.5'	118°30.0'	33°52.5'	118°30.0'	30	calm		fog	missing	15.90	33.58
87.36-B	10	1030	33°46.5'	118°44.0'	33°46.5'	118°44.0'	490	060°	1	clear	slight	15.69	33.59
87.37 ⁵ -P	11	2355	33°46.0'	118°49.5'	33°46.0'	118°49.5'	540	120°	1	overcast	slight	16.27	33.64
87.40-B	10	0755	33°40.0'	118°58.5'	33°40.0'	118°58.5'	450	220°	1	clear	smooth	14.78	33.59
87.40-P	12	0200	33°40.5'	118°59.5'	33°40.5'	118°59.5'	510	calm		partly cloudy	slight	15.42	33.60
87.42 ⁵ -P	12	0340	33°35.5'	119°10.0'	33°35.5'	119°10.0'	240	calm		clear	moderate	15.70	33.62
87.47 ⁵ -P	12	0804	33°26.5'	119°31.0'	33°26.5'	119°31.0'	500	350°	3	partly cloudy	moderate	15.68	33.64
87.50-P	12	1025	33°19.5'	119°41.0'	33°19.5'	119°41.0'	44	330°	4	partly cloudy	moderate	15.60	33.59
87.52 ⁵ -P	12	1220	33°16.0'	119°50.5'	33°16.0'	119°50.5'	50	350°	3	partly cloudy	moderate	15.41	33.58
87.55-P	12	1405	33°12.0'	120°01.5'	33°12.0'	120°01.5'	600+	350°	3	partly cloudy	rough	15.21	33.59
87.57 ⁵ -P	12	1610	33°08.5'	120°11.0'	33°08.5'	120°11.0'	400	320°	5	partly cloudy	rough	15.30	33.58
87 ⁵ .36-B	10	0500	33°40.0'	118°38.0'	33°40.0'	118°38.0'	350	240°	1	missing	slight	15.28	33.62
88.32-B	10	0200	33°40.0'	118°17.5'	33°40.0'	118°17.5'	-	-	-	missing	missing	16.22	33.62
89.29-B	9	2115	33°34.5'	117°58.5'	33°34.5'	117°58.5'	28	300°	1	partly cloudy	slight	17.05	33.62
89.34-B	10	0000	33°26.5'	118°16.5'	33°26.5'	118°16.5'	460	270°	1	partly cloudy	slight	16.92	33.66

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	10 Meters T S
90.28-B	XI-9	1930	33°29.0'	117°45.5'	30	320° 1	partly cloudy	smooth	15.94 33.61
90.30-B	9	1745	33°25.0'	117°55.0'	340	calm	clear	smooth	17.04 33.68
90.30-P	14	1930	33°24.0'	117°54.5'	350	300° 5	partly cloudy	very rough	16.34 33.63
90.32 ⁵ -P	14	1730	33°19.0'	118°05.0'	480	300° 5	partly cloudy	very rough	16.56 33.67
90.35-P	14	1555	33°15.0'	118°13.5'	250	280° 4	partly cloudy	very rough	16.43 33.68
90.37 ⁵ -P	13	1510	33°09.5'	118°24.5'	660	310° 2	partly cloudy	moderate	16.59 33.63
90.42 ⁵ -P	13	1120	33°02.5'	118°44.5'	780	290° 3	partly cloudy	moderate	16.24 33.64
90.45-P	13	0925	32°57.0'	118°56.5'	1050	280° 2	partly cloudy	moderate	16.48 33.64
90.47 ⁵ -P	13	0710	32°51.0'	119°06.5'	750	300° 3	cloudy	rough	16.69 33.68
90.50-P	13	0525	32°45.5'	119°17.0'	115	300° 3	cloudy	rough	16.63 33.80
90.52 ⁵ -P	13	0355	32°40.0'	119°27.0'	690	320° 3	partly cloudy	very rough	15.92 33.62
91.31-B	9	1600	33°12.0'	117°52.0'	450	360° 1	clear	slight	17.42 33.69
92.26-B	9	1120	33°12.0'	117°27.5'	30	060° 2	clear	slight	16.48 33.68
92.31-B	9	1400	33°04.0'	117°44.0'	450	060° 1	clear	slight	16.77 33.68
92 ⁵ .26-B	9	0945	33°04.0'	117°20.0'	180	calm	clear	smooth	16.26 33.63
93.30-B	9	0715	32°50.0'	117°31.5'	480	calm	clear	smooth	17.19 33.68

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

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SECOND TRACK

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
82.42-P	XI-16	1645	34°14.0'	119°34.0'	57	080°	3	cloudy	slight	14.28 33.57
82.44-P	16	1810	34°14.0'	119°45.5'	115	080°	3	overcast	slight	14.26 33.55
82.47-P	16	2010	34°13.5'	120°00.0'	350	080°	3	overcast	slight	13.10 33.55
83.48-P	16	2245	33°57.5'	119°55.0'	120	080°	1	overcast	slight	12.46 33.57
83.51-P	17	0105	33°51.5'	120°08.0'	160	080°	3	overcast	slight	12.38 33.58
83.525-P	17	0222	33°49.5'	120°13.5'	350	270°	3	overcast	moderate	13.34 33.55
83.55-P	17	0400	33°46.5'	120°23.5'	680	300°	3	rain	moderate	14.48 33.61
83.575-P	17	0555	33°43.5'	120°33.5'	650	270°	2	rain	moderate	14.94 33.64
85.40-P	18	0145	33°57.0'	119°10.0'	500	290°	3	partly cloudy	moderate	15.11 33.61
85.425-P	18	0000	33°52.0'	119°21.0'	420	290°	1	partly cloudy	moderate	14.50 33.56
85.45-P	17	2225	33°47.0'	119°31.0'	1130	300°	5	partly cloudy	rough	13.80 33.57
85.475-P	17	2030	33°42.5'	119°41.0'	960	320°	3	partly cloudy	moderate	13.98 33.57
85.525-P	17	1650	33°31.0'	119°59.5'	460	300°	3	partly cloudy	moderate	13.29 33.56
85.55-P	17	1535	33°27.5'	120°07.0'	700+	280°	3	partly cloudy	moderate	14.09 33.57
85.575-P	17	1310	33°29.0'	120°22.0'	710	240°	3	rain	moderate	14.40 33.56
87.375-P	18	0845	33°45.5'	118°49.0'	570	090°	3	partly cloudy	moderate	15.07 33.58
87.40-P	18	1035	33°41.0'	119°00.0'	580	090°	3	partly cloudy	moderate	14.18 33.50
87.425-P	18	1235	33°36.5'	119°12.0'	255	090°	2	partly cloudy	moderate	13.83 33.51
87.525-P	18	2200	33°15.0'	119°50.5'	60	290°	2	partly cloudy	moderate	14.70 33.58

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	10 Meters T S
87.55-P	XI-18	2345	33°11.0'	120°00.0'	730	290°	3	partly cloudy	moderate	15.14 33.58
87.575-P	19	0125	33°06.5'	120°09.0'	450	290°	3	partly cloudy	moderate	14.01 33.53
90.30-P	20	0245	33°24.0'	117°54.5'	380	270°	1	partly cloudy	moderate	16.02 33.56
90.325-P	20	0100	33°18.5'	118°04.5'	420	270°	2	partly cloudy	moderate	16.20 33.62
90.35-P	19	2335	33°15.0'	118°13.5'	290	270°	3	partly cloudy	moderate	15.86 33.62
90.375-P	19	2200	33°09.5'	118°25.0'	730	270°	3	partly cloudy	moderate	15.78 33.60
90.425-P	19	1830	33°01.0'	118°44.5'	840	320°	2	partly cloudy	moderate	15.00 33.58
90.45-P	19	1648	32°56.0'	118°56.5'	1050	320°	2	partly cloudy	moderate	14.92 33.57
90.475-P	19	1515	32°50.5'	119°06.5'	800	300°	2	partly cloudy	moderate	15.00 33.54
90.50-P	19	1335	32°46.0'	119°15.5'	280	300°	2	partly cloudy	moderate	15.63 33.60
90.525-P	19	1205	32°40.0'	119°26.0'	760	300°	2	partly cloudy	moderate	15.02 33.60

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; November 30, 1955; 1729 GCT; 34°26'N, 120°33'W; sounding, 62 fm; wind, 320°, force 6; weather, cloudy; sea, rough; wire angle, missing.

80.51

0	12.72	33.57		262	0	12.72	33.57		25.36	262	0.00
10	12.80	33.58		263	10	12.80	33.58		25.35	263	0.03
20	12.76	33.58		262	20	12.76	33.58		25.36	262	0.05
30	12.54	33.58		258	30	12.54	33.58		25.41	258	0.08
50	10.96	33.56		231	50	10.96	33.56		25.69	231	0.13
75	9.92	33.68		206	75	9.92	33.68		25.96	206	0.18
100	9.29	33.84		184	100	9.29	33.84		26.18	184	0.23

STRANGER; November 30, 1955; 2039 GCT; 34°19'N, 120°48'W; sounding, 410 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 30°.

80.55

0	12.1	33.56		252	0	12.1	33.56		25.47	252	0.00
8	12.01	33.55		251	10	12.01	33.55		25.48	251	0.03
27	11.53	33.55		242	20	12.01	33.55		25.48	251	0.05
40	10.80	33.57		228	30	11.31	33.55		25.60	239	0.08
48	-	33.57		-	50	10.52	33.57		25.78	222	0.12
56	10.34	33.57		220	75	9.93	33.64		25.93	208	0.18
64	-	33.60		-	100	9.27	33.78		26.14	188	0.23
71	10.05	33.62		212	150	8.77	33.94		26.35	168	0.32
83	9.59	33.68		200	200	8.46	34.12		26.52	152	0.40
91	9.40	33.73		194	250	8.33	34.20		26.62	143	0.47
111	9.14	33.82		183	300	7.75	34.23		26.73	132	0.54
134	8.89	33.87		176							
177	8.54	34.03		159							
229	8.46	34.18		146							
323	7.44	34.23		128							

STRANGER; December 1, 1955; 0011 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 27°.

80.60

0	13.3	33.57		273	0	13.3	33.57		25.25	273	0.00
8	13.34	33.58		273	10	13.29	33.58		25.25	273	0.03
26	12.94	33.54		268	20	13.13	33.56		25.28	270	0.05
39	12.36	33.55		257	30	12.79	33.54		25.33	266	0.08
48	-	33.55		-	50	11.70	33.55		25.54	245	0.13
57	11.25	33.60		234	75	10.38	33.49		25.73	228	0.19
66	-	33.58		-	100	9.14	33.78		26.17	186	0.24
74	10.42	33.49		228	150	8.49	33.99		26.43	160	0.33
86	9.56	33.64		203	200	7.83	34.05		26.58	147	0.41
94	9.26	33.73		192	250	7.18	34.07		26.69	136	0.48
114	8.90	33.87		176	300	6.67	34.11		26.78	127	0.55
137	8.65	33.96		166	400	6.07	34.18		26.92	114	0.67
182	8.10	34.03		152	500	5.70	34.22		27.00	107	0.79
234	7.36	34.06		140	600	(4.96)	(34.28)		(27.13)	(94)	(0.84)
333	6.40	34.14		122							
451	5.90	34.20		111							
581	5.04	34.27		96							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

80.70

STRANGER; December 1, 1955; 0646 GCT; 33°48'N, 121°50.5'W; sounding, 1900 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 21°.

0	13.1	33.39		283	0	13.1	33.39		25.14	283	0.00
8	13.06	33.40		281	10	13.06	33.40		25.18	280	0.03
23	13.07	33.42		279	20	13.07	33.40		25.18	280	0.06
52	11.13	33.46		242	30	13.07	33.42		25.19	278	0.08
59	-	33.35u		-	50	11.40	33.46		25.52	248	0.14
68	9.95	33.44		224	75	9.67	33.49		25.85	216	0.19
82	-	33.58		-	100	8.94	33.75		26.18	184	0.25
102	8.89	33.77		183	150	8.23	33.93		26.42	162	0.33
123	8.62	33.85		173	200	7.72	33.96		26.52	152	0.40
149	8.24	33.93		162	250	7.40	34.07		26.65	140	0.49
198	7.74	33.96a)		152	300	7.14	34.18		26.78	127	0.55
272	7.24	34.13		133	400	6.63	34.25		26.90	116	0.68
370	6.81	34.24		119	500	5.95	34.28		27.01	106	0.80
503	5.94	34.28		105	600	5.40	34.34		27.13	94	0.90
681	5.02	34.38		88	700	4.97	34.39		27.22	86	1.00
906	4.17	34.43		74	800	4.60	34.41		27.27	81	1.09
1208	3.31	-		-	1000	3.80	(34.45)		(27.39)	(70)	(1.25)

80.80

STRANGER; December 1, 1955; 1340 GCT; 33°24.5'N, 122°32'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 26°.

0	14.1	33.12		322	0	14.1	33.12		24.73	322	0.00
8	14.00	33.12		320	10	13.92	33.12		24.78	318	0.03
23	13.03	33.15		299	20	13.17	33.14		24.94	302	0.06
49	12.76	33.33		280	30	12.92	33.17		25.02	295	0.09
58	-	33.49		-	50	12.74	33.34		25.18	280	0.15
67	12.62	33.51		265	75	12.38	33.54		25.41	258	0.22
79	-	33.55		-	100	10.75	33.44		25.62	237	0.28
97	10.78	33.33		245	150	8.92	33.68		26.13	190	0.39
119	9.76	33.58		210	200	8.03	33.90		26.42	162	0.48
144	9.04	33.65		194	250	7.22	33.98		26.61	144	0.55
188	8.20	33.87		166	300	6.73	34.00		26.69	136	0.63
250	7.22	33.98		144	400	5.92	34.12		26.90	116	0.76
333	6.47	34.02		131	500	5.28	34.24		27.06	100	0.87
446	5.57	34.20		107	600	4.90	34.29		27.14	93	0.97
600	4.90	34.29		93	700	4.60	34.31		27.20	88	1.07
797	4.28	34.34		82	800	4.22	34.34		27.26	82	1.16
1072	3.48	34.48		64	1000	3.66	34.45		27.40	68	1.32

80.90

STRANGER; December 1, 1955; 1900 GCT; 32°59.5'N, 123°13'W; sounding, 2200 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 12°.

0	14.7	32.92		348	0	14.7	32.92		24.46	348	0.00
10	14.60	32.94		345	10	14.60	32.94		24.49	345	0.03
25	14.58	32.93		345	20	14.58	32.93		24.49	345	0.07
55	14.40	33.03		334	30	14.56	32.94		24.51	343	0.10
64	-	33.08		-	50	14.43	33.01		24.58	337	0.17
73	12.21	33.15		284	75	12.11	33.15		25.15	282	0.25
89	-	33.14		-	100	10.71	33.13		25.40	259	0.32
108	10.26	33.13		252	150	8.92	33.66		26.11	192	0.43
133	8.96	33.38		213	200	8.17	33.95		26.43	161	0.52
160	8.80	33.73		185	250	7.67	34.02		26.58	147	0.60
213	8.12	33.98		156	300	7.13	34.05		26.68	137	0.67
289	7.24	34.04		140	400	6.05	34.13		26.90	117	0.81
393	6.08	34.13		118	500	5.51	34.22		27.02	105	0.92
530	5.42	34.23		103	600	5.20	34.27		27.09	98	1.03
715	4.59	34.35		85	700	4.65	34.33		27.21	87	1.13
945	3.93	34.47		69	800	4.20	34.42		27.32	76	1.22
1246	3.27	34.54		58	1000	3.82	34.48		27.42	67	1.38

a) Alternate value, 34.04‰, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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STRANGER; December 3, 1955; 1311 GCT; 34°07'N, 119°34'W; sounding, 127 fm; wind, 310°, force 2; weather, missing; sea, moderate; wire angle, 03°.

83.43

0	12.97	33.55		268	0	12.97	33.55		25.30	268	0.00
10	13.00	33.55		269	10	13.00	33.55		25.29	269	0.03
15	12.98	33.57		267	20	12.98	33.55		25.30	268	0.05
20	-	33.55		-	30	12.97	33.55		25.30	268	0.08
25	12.98	33.55		268	50	12.94	33.55		25.31	267	0.13
31	-	33.56		-	75	10.19	33.63		25.87	214	0.19
36	12.96	33.55		268	100	9.12	33.85		26.22	180	0.24
46	12.98	33.55		268	150	8.49	34.06		26.48	156	0.33
55	12.86	33.55		266	200	(8.30)	(34.15)		(26.58)	(146)	(0.40)
64	11.16	33.58		233							
74	10.25	33.62		216							
94	9.23	33.80		186							
108	8.96	33.89		175							
136	8.49	34.01		159							
165	8.49	34.11		152							
199	8.32	34.15		146							

STRANGER; December 2, 1955; 1457 GCT; 33°51.5'N, 120°08'W; sounding, 70+ fm; wind, 260°, force 7; weather, cloudy; sea, rough; wire angle, 07°.

83.51

0	12.94	33.53		269	0	12.94	33.53		25.29	269	0.00
10	12.92	33.57		266	10	12.92	33.57		25.33	266	0.03
20	12.72	33.67		255	20	12.72	33.67		25.44	255	0.05
30	11.14	33.58		233	30	11.14	33.58		25.66	233	0.08
50	9.87	33.68		205	50	9.87	33.68		25.96	205	0.12
73	8.90	33.88		175	75	8.88	33.90		26.30	173	0.17
96	8.77	33.94		168	100	(8.70)	(33.97)		(26.38)	(166)	(0.21)

STRANGER; December 2, 1955; 0901, 0955 GCT; 33°33.5'N, 120°45'W; sounding, 700+ fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 11°, 10°.

83.60

0	12.8	33.50		269	0	12.8	33.50		25.29	269	0.00
10	12.96	33.49		272	10	12.96	33.49		25.26	272	0.03
28	12.96	33.48		273	20	12.96	33.48		25.25	273	0.05
					30	12.96	33.47		25.25	273	0.08
46	11.76	33.42		256	50	11.20	33.45		25.55	244	0.13
56	-	33.51		-	75	9.57	33.63		25.98	203	0.19
66p	10.02	33.55		217	100	8.70	33.80		26.25	178	0.24
91p	8.91	33.76		184	150	8.13	33.97		26.48	156	0.32
134p	8.31	33.91		164	200	7.48	34.05		26.63	142	0.40
186p	7.64	34.03		146	250	6.98	34.09		26.74	132	0.47
279p	6.66	34.11		127	300	6.50	34.13		26.83	123	0.53
390p	5.98	34.20		111	400	5.89	34.21		26.97	110	0.65
509p	5.38	34.28		99	500	5.40	34.27		27.07	100	0.76

STRANGER; December 4, 1955; 0511 GCT; 33°50'N, 118°38'W; sounding, 340 fm; wind, calm; weather, missing; sea, moderate; wire angle, 02°.

87.35

0	13.6	33.57	5.74	279	0	13.6	33.57	5.74	25.19	279	0.00
10	13.56	33.56	5.59	279	10	13.56	33.56	5.59	25.19	278	0.03
30	13.41	33.53	5.58	278	20	13.50	33.55	5.59	25.19	278	0.06
40	11.58	33.46	4.50	249	30	13.41	33.53	5.58	25.20	278	0.08
51	-	33.54	4.01	-	50	10.65	33.54	4.04	25.72	228	0.13
60	10.16	33.55	3.98	219	75	9.79	33.62	3.49	25.93	208	0.19
70	-	33.60	3.58	-	100	9.28	33.78	3.06	26.14	188	0.24
80	9.70	33.65	3.44	206	150	9.17	33.95	2.37	26.30	174	0.33
89	9.44	33.73	3.15	194	200	8.63	34.08	2.13	26.48	156	0.41
99	9.29	33.78	3.07	189	250	8.28	34.15	1.70	26.58	146	0.49
118	9.25	33.91	2.56	178	300	7.96	34.21	1.23	26.68	137	0.56
143	9.18	33.95	2.38	174	400	7.19	34.30	0.66	26.86	120	0.70
162	9.09	33.96	2.35	172	500	6.38	34.34	0.39	27.01	106	0.81
198	8.63	34.07	2.14	157							
300	7.96	34.21	1.23	137							
402	7.18	34.30	0.62	119							
519	6.20	34.34	0.35	104							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T}{10 \text{ cm/g}}$	dyn. m

87.40

STRANGER; December 4, 1955; 0830 GCT; 33°40'N, 118°59'W; sounding, 400+ fm; wind, 190°, force 2; weather, drizzle; sea, moderate; wire angle, 02°.

0	13.8	33.54	5.72	285	0	13.8	33.54	5.72	25.12	285	0.00
10	13.74	33.58	5.68	281	10	13.74	33.58	5.68	25.16	281	0.03
30	13.75	33.57	5.64	282	20	13.75	33.58	5.65	25.16	281	0.06
39	12.20	33.49	4.78	259	30	13.75	33.57	5.64	25.15	282	0.08
50	-	33.51	4.29	-	50	11.21	33.51	4.29	25.60	240	0.14
59	10.60	33.51	3.97	229	75	10.01	33.59	3.50	25.87	214	0.19
69	-	33.58	3.76	-	100	9.47	33.68	2.74	26.03	199	0.25
79	9.86	33.59	3.30	211	150	8.70	34.00	2.15	26.40	163	0.34
88	9.58	33.64	3.06	203	200	8.41	34.17	1.63	26.58	146	0.42
97	9.47	33.68	2.77	199	250	7.88	34.17	1.02	26.66	139	0.49
122	9.32	33.88	2.54	181	300	7.51	34.21	0.98	26.74	131	0.56
150	8.70	34.00	2.15	163	400	6.78	34.30	0.88	26.92	114	0.68
198	8.42	34.17	1.68	147	500	6.03	34.36	0.69	27.06	100	0.80
255	7.82	34.17	1.00	138	600	(5.50)	(34.45)	(0.51)	(27.20)	(88)	(0.90)
356	7.16	34.26	0.95	122							
473	6.18	34.34	0.72	104							
597	5.54	34.45	0.51	88							

87.50

STRANGER; December 4, 1955; 1309, 1327 GCT; 33°20'N, 119°40'W; sounding, 41 fm; wind, 230°, force 6; weather, rain; sea, moderate; wire angle, 06°, 08°.

0	12.76	33.53	5.64	266	0	12.76	33.53	5.64	25.33	266	0.00
10	12.64	33.55	5.45	263	10	12.64	33.55	5.45	25.36	263	0.03
20	12.44	33.58	5.27	257	20	12.44	33.58	5.27	25.42	257	0.05
					30	11.98	33.57	4.96	25.51	248	0.08
30	11.98	33.57	4.96	248	50	10.44	33.62	3.98	25.82	219	0.12
50	10.44	33.62	3.98	219							

87.60

STRANGER; December 4, 1955; 1955 GCT; 33°00'N, 120°21.5'W; sounding, 400 fm; wind, 230°, force 5; weather, overcast; sea, rough; wire angle, 02°.

0	13.8	33.56	6.07	284	0	13.8	33.56	6.07	25.13	284	0.00
10	13.59	33.57	5.89	278	10	13.59	33.57	5.89	25.19	278	0.03
30	13.55	33.58	5.82	277	20	13.56	33.57	5.86	25.20	278	0.06
45	12.42	33.52	5.16	261	30	13.55	33.58	5.82	25.21	277	0.08
57	-	33.58	3.89	-	50	11.60	33.55	4.49	25.56	244	0.14
67	9.86	33.59	3.88	211	75	9.42	33.68	3.48	26.03	198	0.19
76	-	33.68	3.46	-	100	8.77	33.82	2.93	26.25	177	0.24
86	9.08	33.93u	3.02	-	150	8.28	34.00	2.31	26.47	157	0.32
100	8.77	33.82	2.93	177	200	7.53	34.13	1.74	26.68	137	0.40
111	8.66	33.89	2.69	171	250	7.06	34.13	1.48	26.75	130	0.47
136	8.42	33.96	2.45	162	300	6.79	34.14	1.31	26.80	126	0.53
164	8.19	34.05	2.16	152	400	5.98	34.22	0.70	26.97	110	0.65
216	7.30	34.13	1.59	134	500	5.50	34.28	0.42	27.07	100	0.76
280	6.94	34.13	1.38	129	600	5.19	34.34	0.38	27.16	92	0.86
391	6.02	34.21	0.79	112							
518	5.46	34.29	0.41	99							
653	4.95	34.39	0.34	86							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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STRANGER; December 6, 1955; 1132 GCT; 33°28.5'N, 117°46'W; sounding, 44 fm; wind, 330°, force 2; weather, missing; sea, smooth; wire angle, 00°.

90.28

0	14.19	33.58		290	0	14.19	33.58		25.07	290	0.00
10	14.12	33.57		289	10	14.12	33.57		25.08	289	0.03
20	13.20	33.52		275	20	13.20	33.52		25.23	275	0.06
30	11.98	33.49		254	30	11.98	33.49		25.45	254	0.08
50	10.32	33.54		222	50	10.32	33.54		25.78	222	0.13

STRANGER; December 6, 1955; 0936 GCT; 33°24'N, 117°54.5'W; sounding, 320 fm; wind, calm; weather, overcast; sea, smooth; wire angle, 00°.

90.30

0	14.0	33.53	5.90	290	0	14.0	33.53	5.90	25.07	290	0.00
10	13.92	33.49	5.86	291	10	13.92	33.49	5.86	25.06	291	0.03
30	13.76	33.49	5.70	288	20	13.84	33.49	5.75	25.08	290	0.06
41	11.79	33.46	4.55	253	30	13.76	33.49	5.70	25.10	288	0.09
50	10.90	33.46	4.03	238	50	10.90	33.46	4.03	25.62	238	0.14
60	-	33.49	3.79	-	75	9.87	33.61	3.20	25.90	211	0.20
70	10.04	33.55	3.53	217	100	9.30	33.90	2.53	26.23	180	0.25
79	-	33.68	3.02	-	150	8.95	34.11	2.11	26.45	159	0.33
90	9.46	33.76	2.79	193	200	8.54	34.20	1.65	26.58	146	0.41
99	9.30	33.89	2.54	180	250	7.92	34.20	1.40	26.68	137	0.48
118	9.20	33.97	2.37	173	300	7.42	34.21	1.10	26.76	130	0.55
142	9.00	34.04	2.19	165	400	6.93	34.26	0.67	26.87	119	0.68
160	8.92	34.13	2.05	157	500	(6.38)	(34.34)	(0.36)	(27.01)	(106)	(0.79)
199	8.55	34.20	1.66	146							
275	7.62	34.20	1.27	133							
375	7.04	34.24	0.72	122							
493	6.40	34.33	0.37	107							

STRANGER; December 6, 1955; 0541 GCT; 33°10.5'N, 118°24'W; sounding, 600 fm; wind, variable, force 1; weather, overcast; sea, moderate; wire angle, 03°.

90.37

0	14.4	33.60	5.66	293	0	14.4	33.60	5.66	25.04	293	0.00
10	14.22	33.59	5.80	290	10	14.22	33.59	5.80	25.07	290	0.03
30	14.10	33.57	4.80	289	20	14.19	33.58	5.45	25.07	290	0.06
40	12.31	33.52	4.95	258	30	14.10	33.57	4.80	25.08	289	0.09
50	11.00	33.51	4.37	236	50	11.00	33.51	4.37	25.64	236	0.14
60	-	33.55	4.11	-	75	10.08	33.59	3.81	25.86	215	0.20
69	10.30	33.57	3.93	220	100	9.26	33.66	3.20	26.05	197	0.25
79	-	33.60	3.72	-	150	8.55	33.98	2.32	26.41	162	0.34
89	9.56	33.65	3.39	202	200	8.10	34.13	1.68	26.60	145	0.42
98	9.32	33.66	3.27	198	250	7.72	34.18	1.11	26.70	136	0.49
122	8.97	33.81	2.81	181	300	7.23	34.20	1.09	26.78	128	0.56
150	8.55	33.98	2.32	162	400	6.55	34.24	1.00	26.91	116	0.68
198	8.13	34.13	1.71	145	500	6.10	34.30	0.73	27.01	106	0.80
255	7.64	34.18	1.09	135	600	(5.66)	(34.34)	(0.38)	(27.10)	(97)	(0.90)
356	6.75	34.22	1.07	120							
471	6.21	34.34a)	0.25r	-							
596	5.68	34.34	0.38	98							

a) Loose bottle cap; value does not fall on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

90.45

STRANGER; December 6, 1955; 0149 GCT; 32°54.5'N, 118°56'W; sounding, 900+ fm; wind, 120°, force 3; weather, overcast; sea, rough; wire angle, 00°.

0	14.6	33.58	5.75	298	0	14.6	33.58	5.75	24.98	298	0.00
10	14.37	33.60	5.77	292	10	14.37	33.60	5.77	25.05	292	0.03
30	14.36	33.58	5.70	293	20	14.37	33.59	5.74	25.04	293	0.06
40	14.26	33.59	5.72	290	30	14.36	33.58	5.70	25.04	293	0.09
50	12.20	33.59	4.57	251	50	12.20	33.59	4.57	25.48	251	0.14
60	-	33.53	4.21	-	75	9.97	33.63	3.72	25.92	210	0.20
70	10.18	33.58	3.83	217	100	9.28	33.70	3.15	26.08	194	0.25
80	-	33.65	3.63	-	150	8.53	33.98	2.45	26.41	162	0.34
90	9.50	33.68	3.45	199	200	8.36	34.15	1.76	26.57	147	0.42
99	9.33	33.70	3.16	195	250	7.80	34.21	1.25	26.71	134	0.49
123	8.90	33.86	2.71	177	300	7.35	34.25	0.91	26.82	124	0.56
152	8.49	33.98	2.40	162	400	6.62	34.31	0.59	26.94	112	0.68
199	8.36	34.14	1.78	148	500	6.18	34.35	0.46	27.04	103	0.79
256	7.71	34.22	1.18	133	600	(5.62)	(34.36)	(0.35)	(27.12)	(95)	(0.90)
356	6.91	34.28	0.64	117							
472	6.29	34.34	-	105							
596	5.66	34.36	0.35	96							

90.55

STRANGER; December 5, 1955; 2040, 2100, 2115 GCT; 32°36'N, 119°36'W; sounding, 600 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 12°, 15°, 15°.

0	15.0	33.57		307	0	15.0	33.57		24.89	307	0.00
10	14.70	33.60		299	10	14.70	33.60		24.98	299	0.03
30	14.43	33.59		294	20	14.53	33.59		25.01	296	0.06
40	14.36	33.60		291	30	14.43	33.59		25.03	294	0.09
50	12.30	33.48		261	50	12.30	33.48		25.37	261	0.15
59	-	33.46		-	75	10.12	33.56		25.83	218	0.21
69	10.29	33.53		223	100	9.07	33.73		26.13	190	0.26
79	-	33.64u		-	150	8.37	34.04		26.49	156	0.34
					200	7.91	34.13		26.63	142	0.42
86	9.72	33.64		206	250	7.42	34.14		26.71	134	0.49
94	9.28	33.70		194	300	6.99	34.19		26.80	126	0.56
116	8.76	33.84		176							
141	8.43	33.96		163							
186	8.02	34.13		144							
239	7.52	34.14		136							
331	6.76	34.20		121							

90.60

STRANGER; December 5, 1955; 1732 GCT; 32°26'N, 119°56.5'W; sounding, 480 fm; wind, 270°, force 1; weather, overcast; sea, moderate; wire angle, 05°.

0	13.9	33.49	5.80	291	0	13.9	33.49	5.80	25.06	291	0.00
10	13.67	33.51	5.80	285	10	13.67	33.51	5.80	25.12	285	0.03
31	13.66	33.51	5.84	285	20	13.67	33.51	5.82	25.12	285	0.06
41	13.60	33.50	5.82	284	30	13.66	33.51	5.84	25.12	285	0.09
51	-	33.48	5.66	-	50	12.57	33.49	5.69	25.33	266	0.14
61	11.38	33.39	5.08	251	75	10.61	33.38	4.70	25.60	240	0.20
71	-	33.36	4.83	-	100	9.46	33.53	3.25	25.92	210	0.26
80	10.34	33.42	4.52	231	150	8.40	33.92	2.71	26.39	164	0.35
90	9.60	33.53	4.02	212	200	7.76	34.06	2.20	26.60	144	0.43
99	9.48	33.53	3.26	210	250	7.05	34.10	1.64	26.72	133	0.50
125	8.82	33.79	3.10	181	300	6.57	34.14	1.28	26.82	124	0.57
153	8.38	33.93	2.70	164	400	5.95	34.20	0.83	26.95	111	0.69
201	7.71	34.06	2.16	144	500	5.38	34.31	0.48	27.11	96	0.80
258	6.98	34.11	1.56	131	600	(5.07)	(34.35)	(0.34)	(27.18)	(90)	(0.90)
359	6.18	34.16	0.97	117							
475	5.45	34.29a)	0.54	99							
597	5.08	34.34	0.34	91							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

S10
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5512

STRANGER; December 5, 1955; 1228 GCT; 32°06'N, 120°37'W; sounding, 2000+ fm; wind, 320°, force 1; weather, cloudy; sea, moderate; wire angle, 16°.

90.70

0	13.5	33.40	6.05	290	0	13.5	33.40	6.05	25.08	290	0.00
10	13.44	33.40	6.00	288	10	13.44	33.40	6.00	25.09	288	0.03
24	13.51	33.46	5.96	285	20	13.48	33.44	5.98	25.11	286	0.06
48	13.46	33.49	5.85	282	30	13.50	33.49	5.88	25.14	284	0.09
57	-	33.42	5.66	-	50	13.43	33.49	5.84	25.16	282	0.14
66	11.09	33.30	5.16	253	75	10.58	33.35	4.77	25.59	240	0.21
76	-	33.35	4.74	-	100	9.67	33.53	3.98	25.88	213	0.27
93	9.90	33.46	4.18	222	150	8.56	33.92	2.61	26.37	166	0.36
116	9.25	33.68	3.58	195	200	8.02	34.09	2.22	26.58	147	0.44
143	8.62	33.87	2.71	172	250	7.57	34.18	1.67	26.72	134	0.51
188	8.16	34.05	2.35	152	300	7.20	34.22	1.31	26.80	126	0.58
251	7.54	34.18	1.65	134	400	6.72	34.26	0.91	26.90	116	0.70
348	7.00	34.23	1.11	122	500	6.10	34.33	0.58	27.04	103	0.82
468	6.30	34.31	0.67	107	600	5.58	34.39	0.44	27.15	92	0.92
639	5.36	34.40	0.43	89	700	5.17	34.41	0.44	27.21	86	1.02
854	4.56	34.43	0.56	78	800	4.78	34.42	0.52	27.27	81	1.11
1151	3.64	34.49	0.87	65	1000	4.02	34.46	0.73	27.38	71	1.27

STRANGER; December 5, 1955; 0630 GCT; 31°44.5'N, 121°19'W; sounding, 2000+ fm; wind, 320°, force 3; weather, drizzle; sea, moderate; wire angle, 00°.

90.80

0	15.4	33.64	5.69	310	0	15.4	33.64	5.69	24.86	310	0.00
9	15.29	33.64	5.62	308	10	15.29	33.64	5.62	24.88	308	0.03
25	15.45	33.73	5.65	305	20	15.37	33.68	5.63	24.89	307	0.06
49	11.68	33.44	4.90	252	30	15.46	33.73	5.65	24.92	305	0.09
59	-	33.45	4.57	-	50	11.64	33.44	4.89	25.47	252	0.15
68	11.34	33.49	4.36	243	75	11.10	33.52	4.16	25.63	236	0.21
78	-	33.55	4.03	-	100	9.08	33.74	3.39	26.14	188	0.26
98	9.15	33.73	3.42	190	150	8.08	33.97	2.50	26.47	158	0.35
123	8.48	33.84	3.04	172	200	7.83	34.12	(1.72)	26.63	142	0.42
152	8.04	33.98	2.48	156	250	7.26	34.14	(1.59)	26.73	132	0.50
199	7.86	34.11	1.74	143	300	6.80	34.17	(1.51)	26.82	124	0.56
266	7.04	34.14	-	130	400	6.37	34.25	1.37	26.94	112	0.68
368	6.49	34.23	1.43	116	500	5.72	34.31	0.39	27.06	100	0.80
494	5.78	34.30	0.39	102	600	5.27	34.35	0.39	27.15	92	0.90
674	5.01	34.39	0.39	87	700	4.98	34.40	0.40	27.22	86	0.99
892	4.34	34.48	0.46	73	800	4.64	34.45	0.40	27.30	78	1.08
1192	3.57	34.52	0.85	62	1000	3.98	34.51	0.61	27.42	67	1.24

STRANGER; December 6, 1955; 1618 GCT; 32°55.5'N, 117°18.5'W; sounding, 50 fm; wind, missing; weather, overcast; sea, moderate; wire angle, 00°.

93.27

0	14.10	33.57	6.00	289	0	14.10	33.57	6.00	25.08	289	0.00
10	14.09	33.57	5.85	289	10	14.09	33.57	5.85	25.08	289	0.03
20	13.40	33.55	5.44	276	20	13.40	33.55	5.44	25.21	276	0.06
30	11.82	33.46	4.59	254	30	11.82	33.46	4.59	25.45	254	0.08
50	10.84	33.51	4.06	233	50	10.84	33.51	4.06	25.67	233	0.13
75	9.95	33.66	3.49	207	75	9.95	33.66	3.49	25.94	207	0.19

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5512

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

93.30

STRANGER; December 7, 1955; 0037 GCT; 32°50'N, 117°31'W; sounding, 400+ fm; wind, 280°, force 1;
weather, overcast; sea, moderate; wire angle, 05°.

0	14.9	33.57	5.90	305	0	14.9	33.57	5.90	24.91	305	0.00
10	14.72	33.55	5.89	302	10	14.72	33.55	5.89	24.94	302	0.03
31	14.69	33.55	5.79	302	20	14.70	33.55	5.82	24.94	302	0.06
41	12.38	33.48	4.87	262	30	14.69	33.55	5.80	24.94	302	0.09
50	11.46	33.51	4.16	244	50	11.46	33.51	4.16	25.55	244	0.14
60	-	33.54	3.78	-	75	10.26	33.57	3.60	25.81	220	0.20
69	10.52	33.55	3.67	225	100	9.77	33.76	2.87	26.05	197	0.26
79	-	33.60	3.81u	-	150	9.28	34.06	2.27	26.36	168	0.35
90	9.78	33.66	3.37	205	200	9.04	34.22	1.62	26.52	152	0.43
98	9.76	33.75a)	2.90	198	250	8.34	34.22	1.48	26.63	142	0.50
122	9.83	34.00	2.32	181	300	7.88	34.23	1.20	26.71	134	0.58
150	9.28	34.06	2.27	168	400	7.05	34.26	0.78	26.86	120	0.71
197	9.16	34.22	1.64	154	500	6.34	34.30	0.51	26.99	108	0.83
254	8.29	34.22	1.43	141	600	(5.62)	(34.37)	(0.37)	(27.12)	(95)	(0.93)
354	7.40	34.25	0.97	126							
470	6.52	34.29	0.58	112							
593	5.71	34.37	0.37	96							

93.40

STRANGER; December 7, 1955; 0545 GCT; 32°30'N, 118°12'W; sounding, 900 fm; wind, 150°, force 4;
weather, missing; sea, moderate; wire angle, 03°.

0	14.4	33.63	5.89	290	0	14.4	33.63	5.89	25.06	290	0.00
10	14.28	33.62	5.60	289	10	14.28	33.62	5.60	25.08	289	0.03
30	14.06	33.64	5.59	283	20	14.19	33.62	5.59	25.11	286	0.06
40	12.46	33.55	4.95	259	30	14.06	33.64	5.59	25.14	283	0.09
50	10.65	33.52	4.22	230	50	10.65	33.52	4.22	25.71	230	0.14
60	-	33.55	3.94	-	75	9.68	33.64	3.32	25.96	206	0.19
70	9.84	33.62	3.40	209	100	9.04	33.82	2.78	26.21	182	0.24
79	-	33.66	3.27	-	150	8.50	34.00	2.35	26.43	160	0.33
89	9.25	33.77	2.96	189	200	8.03	34.12	1.85	26.60	144	0.40
99	9.04	33.82	2.80	182	250	7.78	34.25	1.25	26.74	131	0.48
123	8.88	33.91	2.55	173	300	7.37	34.28	0.83	26.82	124	0.54
151	8.48	34.00	2.35	160	400	6.63	34.30	0.50	26.94	112	0.66
199	8.03	34.12	1.87	145	500	6.12	34.32	0.40	27.02	104	0.78
257	7.69	34.26	1.14	130	600	(5.64)	(34.35)	(0.30)	(27.11)	(96)	(0.88)
356	6.88	34.29	0.56	116							
474	6.21	34.31	0.41	106							
596	5.68	34.35	0.30	97							

93.50

STRANGER; December 7, 1955; 1040 GCT; 32°10'N, 118°53'W; sounding, 730+ fm; wind, 300°, force 5;
weather, fog; sea, moderate; wire angle, 12°.

0	14.7	33.59	5.80	299	0	14.7	33.59	5.80	24.98	299	0.00
10	14.71	33.58	5.77	300	10	14.71	33.58	5.77	24.97	300	0.03
30	14.45	33.58	5.77	295	20	14.59	33.58	5.77	24.99	298	0.06
45	12.06	33.32	5.51	269	30	14.45	33.58	5.77	25.02	295	0.09
55	-	33.19	5.26	-	50	11.19	33.23	5.41	25.39	260	0.14
65	10.72	33.39	4.79	240	75	10.40	33.53	4.11	25.76	224	0.20
74	-	33.53	4.11	-	100	9.33	33.69	3.47	26.06	196	0.26
84	10.00	33.54	4.08	218	150	8.52	33.95	2.49	26.40	164	0.35
100	9.33	33.69	3.47	196	200	8.14	34.11	2.00	26.58	146	0.43
110	9.12	33.75	3.09	188	250	7.81	34.19	1.30	26.69	136	0.50
134	8.63	33.87	2.76	172	300	7.48	34.22	0.92	26.75	130	0.57
162	8.42	34.02	2.26	158	400	6.58	34.24	0.51	26.91	116	0.70
214	8.00	34.15	1.79	142	500	5.98	34.30	0.32	27.03	104	0.81
275	7.68	34.21	1.04	133	600	5.58	34.34	0.30	27.11	96	0.92
384	6.66	34.23	0.58	118							
508	5.89	34.31	0.31	102							
639	5.42	34.36	0.29	93							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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5512

STRANGER; December 8, 1955; 0301 GCT; 32°14'N, 117°07'W; sounding, 27 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 05°.

97.30

0	14.60	33.56	5.80	300	0	14.60	33.56	5.80	24.97	300	0.00
10	14.60	33.54	5.58	301	10	14.60	33.54	5.58	24.96	301	0.03
20	13.58	33.53	5.38	281	20	13.58	33.53	5.38	25.16	281	0.06
30	11.92	33.49	4.27	253	30	11.92	33.49	4.27	25.46	253	0.09

STRANGER; December 8, 1955; 0115 GCT; 32°11'N, 117°16.5'W; sounding, 800 fm; wind, 340°, force 6; weather, clear; sea, moderate; wire angle, 18°.

97.32

0	15.2	33.54	5.85	314	0	15.2	33.54	5.85	24.82	314	0.00
9	15.13	33.54	5.74	312	10	15.12	33.54	5.70	24.84	312	0.03
28	15.00	33.55	5.58	309	20	15.06	33.55	5.62	24.86	310	0.06
38	13.33	33.44	5.33	283	30	14.97	33.55	5.57	24.88	308	0.09
47	12.45	33.43	4.99	268	50	12.14	33.45	4.61	25.38	260	0.15
56	-	33.52	3.86	-	75	10.52	33.64	2.89	25.82	218	0.21
65	10.75	33.59	3.26	226	100	10.03	33.77	2.38	26.01	200	0.26
74	-	33.64	2.90	-	150	10.01	34.11	1.52	26.28	176	0.36
84	10.34	33.68	2.70	212	200	9.11	34.12	2.11	26.44	160	0.44
92	10.12	33.73	2.50	205	250	8.96	34.32	1.20	26.62	143	0.52
114	9.98	33.86	2.24	193	300	8.09	34.25	1.20	26.70	136	0.59
141	10.08	34.08	1.51	179	400	7.00	34.28	0.64	26.88	118	0.72
183	9.52	34.14	1.89	165	500	6.23	34.35	0.35	27.03	104	0.84
236	9.16	34.32	1.23	146							
330	7.62	34.23	1.17	131							
440	6.66	34.31	0.45	112							
558	5.85	34.38	0.29	97							

STRANGER; December 7, 1955; 2041 GCT; 31°55'N, 117°49'W; sounding, 400 fm; wind, 300°, force 4; weather, overcast; sea, moderate; wire angle, 03°.

97.40

0	14.9	33.57	5.95	305	0	14.9	33.57	5.95	24.91	305	0.00
10	14.76	33.57	6.01	302	10	14.76	33.57	6.01	24.94	302	0.03
30	14.10	33.55	5.81	290	20	14.60	33.57	6.00	24.98	298	0.06
40	11.88	33.46	5.00	255	30	14.10	33.55	5.81	25.07	290	0.09
50	11.09	33.50	4.50	238	50	11.09	33.50	4.50	25.62	238	0.14
60	-	33.56	4.01	-	75	9.88	33.63	3.73	25.92	209	0.20
70	10.08	33.59	3.80	215	100	9.37	33.73	3.18	26.09	193	0.25
80	-	33.66	3.64	-	150	8.81	33.96	2.48	26.35	168	0.34
89	9.51	33.71	3.34	197	200	8.49	34.19	(1.96)	26.58	146	0.42
100	9.37	33.73	3.18	193	250	7.99	34.22	(1.66)	26.69	136	0.49
124	9.11	33.87	2.94	179	300	7.58	34.26	(1.49)	26.78	128	0.56
152	8.80	33.96	2.45	168	400	6.82	34.31	0.92	26.92	114	0.69
199	8.50	34.19	1.97	146	500	6.14	34.34	0.43	27.03	104	0.80
257	7.94	34.22	0.81u	136	600	(5.62)	(34.38)	(0.46)	(27.13)	(94)	(0.90)
358	7.14	34.29	1.28	120							
474	6.28	34.33	0.43	106							
598	5.62	34.38	0.46	94							

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5512

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \text{ cm/g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \text{ cm/g}$	dyn. m

97.50

STRANGER; December 7, 1955; 1532 GCT; 31°33.5'N, 118°29'W; sounding, 1300 fm; wind, 300°, force 5; weather, overcast; sea, moderate; wire angle, 09°.

0	14.9	33.55	5.72	306	0	14.9	33.55	5.72	24.90	306	0.00
10	15.15	33.55	5.75	312	10	15.15	33.55	5.75	24.84	312	0.03
29	15.12	33.54	5.72	312	20	15.15	33.54	5.73	24.83	312	0.06
39	14.80	33.53	5.72	306	30	15.10	33.54	5.72	24.84	312	0.09
49	14.30	33.48	5.70	300	50	14.22	33.47	5.69	24.98	298	0.15
58	-	33.43	5.61	-	75	11.39	33.40	4.79	25.48	252	0.22
67	12.14	33.39	5.26	265	100	9.97	33.53	4.28	25.83	218	0.28
76	-	33.40	4.78	-	150	8.74	33.83	3.22	26.27	176	0.38
86	10.58	33.44	5.10u	234	200	8.17	34.01	2.85	26.50	154	0.47
93	10.16	33.50	2.96r	223	250	7.72	34.12	1.90	26.65	140	0.54
116	9.60	33.58	4.13	208	300	7.38	34.18	1.40	26.74	131	0.61
143	8.87	33.77	3.30	183	400	6.60	34.29	0.67	26.94	112	0.74
186	8.26	33.98	2.99	158	500	5.92	34.34	0.40	27.06	100	0.85
241	7.80	34.09	2.04	144							
336	7.10	34.22	1.10	124							
447	6.27	34.32	0.51	106							
569	5.54	34.36	0.35	94							

100.29

STRANGER; December 8, 1955; 0723 GCT; 31°42'N, 116°43.5'W; sounding, 50+ fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 00°.

0	13.68	33.51	5.84	285	0	13.68	33.51	5.84	25.12	285	0.00
10	13.36	33.48	5.67	281	10	13.36	33.48	5.67	25.16	281	0.03
20	12.21	33.49	4.98	259	20	12.21	33.49	4.98	25.40	259	0.06
30	11.58	33.51	4.27	246	30	11.58	33.51	4.27	25.53	246	0.08
50	10.72	33.55	3.55	228	50	10.72	33.55	3.55	25.72	228	0.13
75	10.23	33.70	2.76	210	75	10.23	33.70	2.76	25.92	210	0.18

100.30

STRANGER; December 8, 1955; 0855 GCT; 31°40.5'N, 116°46.5'W; sounding, 230 fm; wind, 180°, force 4; weather, fog; sea, moderate; wire angle, 00°.

0	14.7	33.56	6.00	302	0	14.7	33.56	6.00	24.94	302	0.00
10	13.64	33.51	5.83	284	10	13.64	33.51	5.83	25.13	284	0.03
15	12.73	33.50	5.43	267	20	12.04	33.48	4.90	25.43	256	0.06
20	12.04	33.48	4.90	256	30	10.79	33.49	4.44	25.66	234	0.08
25	11.34	33.49	4.58	243	50	10.14	33.60	3.40	25.86	215	0.13
29	-	33.49	4.45	-	75	10.15	33.79	2.51	26.01	201	0.18
35	10.51	33.51	4.32	228	100	10.10	33.92	2.25	26.11	191	0.23
45	-	33.53	3.94	-	150	9.62	34.13	1.78	26.35	168	0.32
54	10.12	33.68	3.26	209	200	8.90	34.22	1.59	26.55	150	0.40
64	10.18	33.73	2.67	206	250	8.40	34.24	1.26	26.63	142	0.47
78	10.12	33.82	2.47	198	300	(7.97)	(34.27)	(0.95)	(26.73)	(132)	(0.54)
98	10.10	33.90	2.29	192							
122	9.97	34.02	1.89	181							
160	9.48	34.16	1.75	163							
200	8.90	34.22	1.59	150							
238	8.49	34.23	1.33	143							
298	7.98	34.27	0.99	133							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{30}^{-5}	Z	T	S	O ₂	σ_t	δT_{30}^{-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; December 8, 1955; 1430 GCT; 31°21'N, 117°27'W; sounding, 1000 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 00°.

100.40

0	15.0	33.59	5.70	306	0	15.0	33.59	5.70	24.90	306	0.00
10	15.06	33.64	5.67	304	10	15.06	33.64	5.67	24.93	304	0.03
25	15.06	33.58	5.55	307	20	15.06	33.60	5.57	24.90	306	0.06
49	11.51	33.48	4.67	247	30	15.04	33.57	5.52	24.89	307	0.09
60	-	33.48	4.42	-	50	11.42	33.48	4.62	25.54	246	0.15
69	10.24	33.57	3.74	219	75	10.03	33.59	3.53	25.86	214	0.20
79	-	33.60	3.45	-	100	9.43	33.74	3.11	26.08	194	0.26
99	9.44	33.73	3.14	194	150	8.73	33.94	2.60	26.35	168	0.35
123	9.14	33.83	2.71	182	200	8.76	34.19	1.87	26.54	150	0.43
151	8.70	33.95	2.58	167	250	8.18	34.23	1.55	26.67	138	0.50
200	8.76	34.19	1.87	150	300	7.95	34.29	1.21	26.75	130	0.57
268	8.20	34.27	1.39	136	400	6.90	34.31	0.78	26.92	114	0.70
370	7.17	34.30	0.93	119	500	6.19	34.35	0.35	27.04	102	0.81
495	6.22	34.35	0.37	104	600	5.59	34.39	0.30	27.16	92	0.91
674	5.14	34.42	0.30	85	700	5.01	34.42	0.32	27.24	84	1.01
893	4.30	34.47	0.48	73	800	4.65	34.45	0.39	27.30	78	1.10
1194	3.44	34.54	0.84	60	1000	3.93	34.50	0.63	27.42	67	1.25

STRANGER; December 8, 1955; 2000 GCT; 31°01'N, 118°07'W; sounding, 950 fm; wind, calm; weather, clear; sea, rough; wire angle, 02°.

100.50

0	14.9	33.60	5.79	302	0	14.9	33.60	5.79	24.94	302	0.00
10	14.92	33.59	5.92	304	10	14.92	33.59	5.92	24.93	304	0.03
26	14.87	33.59	5.74	303	20	14.88	33.59	5.79	24.94	303	0.06
50	12.16	33.40	4.95	264	30	14.37	33.56	5.59	25.03	294	0.09
60	-	33.42	5.11u	-	50	12.16	33.40	4.95	25.34	264	0.15
69	11.10	33.45	4.42	242	75	10.81	33.47	4.35	25.65	235	0.21
79	-	33.48	4.31	-	100	9.82	33.59	3.67	25.91	210	0.27
99	9.88	33.58	3.72	212	150	8.84	33.91	2.60	26.31	172	0.36
123	9.24	33.75	3.03	190	200	8.38	34.07	2.13	26.51	153	0.44
151	8.82	33.92	2.57	171	250	7.84	34.10	1.79	26.61	144	0.52
200	8.38	34.07	2.13	153	300	7.40	34.17	1.30	26.73	132	0.59
268	7.64	34.11	1.62	140	400	6.79	34.29	0.65	26.91	115	0.72
370	6.98	34.27	0.77	119	500	6.18	34.34	0.38	27.04	103	0.83
496	6.18	34.34	0.40	104	600	5.60	34.38	0.30	27.14	93	0.94
674	5.18	34.41	0.29	87	700	5.08	34.41	0.31	27.22	86	1.03
893	4.26	34.48	0.51	72	800	4.68	34.45	0.39	27.30	78	1.12
1199	3.47	34.55	0.82	59	1000	3.86	34.52	0.66	27.44	65	1.28

STRANGER; December 9, 1955; 0135 GCT; 30°38'N, 118°50'W; sounding, 1500+ fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 05°.

100.60

0	16.0	33.65	5.77	322	0	16.0	33.65	5.77	24.73	322	0.00
10	15.72	33.62	5.75	318	10	15.72	33.62	5.75	24.78	318	0.03
25	15.46	33.63	-	312	20	15.55	33.63	5.72	24.82	314	0.06
50	13.13	33.46	5.28	278	30	15.40	33.63	5.69	24.85	311	0.09
59	-	33.46	4.98	-	50	13.13	33.46	5.28	25.20	278	0.15
70	11.48	33.46	4.63	248	75	11.24	33.47	4.44	25.56	243	0.22
79	-	33.49	4.20	-	100	10.26	33.70	3.33	25.91	210	0.28
98	10.31	33.68	3.38	212	150	9.47	34.04	2.14	26.31	172	0.37
122	9.69	33.82	2.66	192	200	9.14	34.23	1.65	26.52	152	0.46
150	9.47	34.04	2.14	172	250	8.80	34.29	1.32	26.62	142	0.53
198	9.16	34.22	1.68	154	300	8.32	34.32	1.03	26.71	134	0.60
264	8.70	34.30	1.24	141	400	7.18	34.33	0.67	26.89	117	0.73
366	7.57	34.33	0.77	122	500	6.29	34.33	0.48	27.01	106	0.85
490	6.37	34.33	0.50	106	600	5.66	34.37	0.37	27.12	96	0.96
668	5.26	34.40	0.34	89	700	5.10	34.41	0.36	27.22	86	1.05
885	4.46	34.43	0.52	78	800	4.72	34.42	0.45	27.28	80	1.14
1187	3.52	34.54	0.82	60	1000	4.08	34.46	0.63	27.37	72	1.31

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

100.70

STRANGER; December 9, 1955; 0720 GCT; 30°19'N, 119°29'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 09°.

0	15.9	33.46	5.70	334	0	15.9	33.46	5.70	24.61	334	0.00
10	15.70	33.44	5.74	331	10	15.70	33.44	5.74	24.64	331	0.03
25	15.54	33.41	5.69	330	20	15.60	33.41	5.70	24.65	330	0.07
50	15.06	33.42	5.63	319	30	15.45	33.41	5.68	24.68	328	0.10
60	-	33.34	5.58	-	50	15.06	33.42	5.63	24.77	319	0.16
69	12.94	33.32	5.55	284	75	12.57	33.32	5.54	25.21	277	0.24
79	-	33.25u	5.51	-	100	11.25	33.33	5.28	25.45	254	0.31
99	11.30	33.33	5.30	255	150	8.93	33.45	3.79	25.94	207	0.42
122	10.04	33.35	4.51	232	200	8.08	33.95	3.16	26.46	158	0.52
152	8.88	33.46	3.74	206	250	7.48	34.02	2.64	26.61	144	0.59
200	8.08	33.95	3.16	158	300	6.99	34.06	1.88	26.71	134	0.66
267	7.27	34.03	2.44	141	400	6.20	34.15	0.96	26.88	118	0.80
370	6.40	34.13	1.03	122	500	5.62	34.25	0.79	27.04	103	0.91
495	5.63	34.24	0.81	105	600	5.21	34.34	0.46	27.16	92	1.01
674	5.00	34.39	0.45	86	700	4.98	34.40	0.47	27.24	84	1.11
893	4.24	34.47	0.66	72	800	4.61	34.44	0.55	27.30	78	1.20
1192	3.52	34.53	0.72	61	1000	3.90	34.50	0.70	27.42	67	1.36

100.80

STRANGER; December 9, 1955; 1250 GCT; 29°58'N, 120°09.5'W; sounding, 1950 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 05°.

0	16.3	33.63	5.59	330	0	16.3	33.63	5.59	24.64	330	0.00
11	16.27	33.64	5.63	329	10	16.28	33.64	5.62	24.66	329	0.03
25	15.51	33.48	5.76	324	20	15.78	33.53	5.72	24.69	326	0.07
52	14.25	33.38	5.73	305	30	15.27	33.45	5.76	24.74	322	0.10
60	-	33.33u	5.69	-	50	14.39	33.38	5.74	24.89	308	0.16
70	12.95	33.39	5.54	279	75	12.48	33.39	5.44	25.28	270	0.23
80	-	33.33u	5.35	-	100	10.68	33.40	4.70	25.61	239	0.30
100	10.68	33.40	4.70	239	150	8.98	33.69	3.55	26.13	190	0.40
123	9.66	33.58	4.67	209	200	8.36	33.95	2.50	26.42	162	0.49
153	8.91	33.70	3.46	188	250	7.72	34.05	2.02	26.59	146	0.57
201	8.33	33.95	2.47	162	300	7.07	34.10	1.64	26.72	133	0.64
269	7.43	34.07	1.84	140	400	6.13	34.18	0.95	26.91	115	0.77
371	6.33	34.14	1.17	120	500	5.62	34.29	0.46	27.06	100	0.89
497	5.62	34.28	0.47	102	600	5.23	34.34	0.38	27.15	92	0.99
675	4.92	34.37	0.37	87	700	4.86	34.38	0.39	27.22	86	1.08
892	4.16	34.46	0.56	72	800	4.53	34.41	0.45	27.29	79	1.17
1198	3.34	34.53	0.90	59	1000	3.79	34.49	0.69	27.43	66	1.33

103.30

STRANGER; December 10, 1955; 1715 GCT; 31°04'N, 116°25'W; sounding, 37 fm; wind, calm; weather, overcast; sea, rough; wire angle, 00°.

0	12.96	33.48	5.48	273	0	12.96	33.48	5.48	25.25	273	0.00
10	12.96	33.51	5.47	271	10	12.96	33.51	5.47	25.27	271	0.03
20	12.26	33.48	4.77	260	20	12.26	33.48	4.77	25.38	260	0.05
30	11.52	33.51	3.76	245	30	11.52	33.51	3.76	25.55	245	0.08
50	10.63	33.68	2.43	217	50	10.63	33.68	2.43	25.84	217	0.13

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; December 10, 1955; 1442 GCT; 30°56'N, 116°44'W; sounding, 700 fm; wind, 330°, force 3; weather, overcast; sea, rough; wire angle, 07°.

103.35

0	15.2	33.59	5.75	310	0	15.2	33.59	5.75	24.86	310	0.00
10	15.08	33.55	5.75	310	10	15.08	33.55	5.75	24.86	310	0.03
30	14.36	33.51	5.72	298	20	14.92	33.54	5.74	24.88	308	0.06
45	11.76	33.41	5.68	257	30	14.36	33.51	5.72	24.99	298	0.09
55	-	33.44	4.35	-	50	11.24	33.42	5.10	25.52	248	0.15
64	10.32	33.49	3.99	226	75	10.40	33.73	2.72	25.91	210	0.20
74	-	33.68	2.73	-	100	9.68	33.81	2.73	26.10	192	0.26
83	10.26	33.77	2.66	205	150	8.97	34.01	2.35	26.36	167	0.34
97	9.84	33.80	3.21u	196	200	8.92	34.17	1.80	26.50	154	0.43
108	9.23	33.83	2.75	184	250	9.06	34.38	1.02	26.64	141	0.50
132	9.05	33.93	2.33	173	300	8.29	34.38	0.87	26.75	130	0.57
160	8.94	34.04	2.36	164	400	6.60	34.31	0.55	26.95	112	0.70
213	8.56	34.14	1.90	151	500	6.02	34.35	0.39	27.06	101	0.81
275	8.74	34.39	-	135	600	5.46	34.40	0.30	27.17	91	0.91
386	6.88	34.30	0.63	115							
510	5.96	34.36	0.35	99							
641	5.25	34.42	0.28	87							

STRANGER; December 10, 1955; 1049, 1111, 1140 GCT; 30°49'N, 116°58'W; sounding, 1100+ fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 11°, 12°, missing.

103.40

0	15.1	33.58	5.70	309	0	15.1	33.58	5.70	24.87	309	0.00
10	15.03	33.57	5.87	308	10	15.03	33.57	5.87	24.88	308	0.03
30	15.00	33.57	5.90	307	20	15.02	33.57	5.88	24.88	308	0.06
45	13.36	33.48	5.53	281	30	15.00	33.57	5.90	24.89	307	0.09
60	11.86	33.42	4.88	258	50	12.80	33.45	5.31	25.26	272	0.15
70	-	33.51u	4.39	-	75	10.73	33.43	4.17	25.62	238	0.21
79	10.51	33.44	4.02	233	100	9.64	33.70	3.28	26.02	200	0.27
					150	8.87	33.95	2.63	26.33	170	0.36
93	-	33.60	3.30	-	200	8.23	34.10	2.03	26.55	149	0.44
102	9.58	33.71	3.28	198	250	7.66	34.16	1.60	26.69	136	0.52
117	9.26	33.82	3.20	185	300	7.24	34.18	1.30	26.77	129	0.58
145	8.94	33.93	2.69	172	400	6.38	34.31	0.90	26.99	108	0.71
					500	5.80	34.33	0.59	27.07	100	0.81
231	7.82	34.15	1.77	139	600	5.42	34.34		27.13	94	0.92
299	7.24	34.18	1.31	129	700	(4.89)	(34.42)		(27.25)	(83)	(1.01)
412	6.22	34.32	0.85	106							
548	5.62	34.33	0.49	98							
685	4.97	34.40	0.81u	85							

STRANGER; December 10, 1955; 0435, 0500 GCT; 30°28'N, 117°39'W; sounding, 1080 fm; wind, 330°, force 6; weather, partly cloudy; sea, rough; wire angle, 21°, 23°.

103.50

0	15.7	33.62	5.75	318	0	15.7	33.62	5.75	24.78	318	0.00
9	15.74	33.60	5.80	320	10	15.72	33.60	5.80	24.75	320	0.03
29	15.37	33.58	5.79	314	20	15.53	33.58	5.80	24.78	317	0.06
43	15.20	33.59	5.70	310	30	15.35	33.58	5.78	24.82	314	0.10
61	14.65	33.51	5.63	304	50	15.13	33.58	5.68	24.88	308	0.16
66	-	33.42	5.42	-	75	12.24	33.40	5.20	25.32	266	0.23
75	12.24	33.40	5.20	266	100	10.39	33.40	4.66	25.66	234	0.29
89	-	33.39	4.98	-	150	8.87	33.80	3.34	26.23	180	0.40
97	10.48	33.39	-	236	200	8.62	34.06	2.30	26.46	158	0.48
111	9.97	33.49	4.24	220	250	8.07	34.16	1.88	26.63	142	0.56
					300	7.60	34.22	1.30	26.75	130	0.63
131	9.50	33.62	3.73	204	400	7.00	34.31	0.64	26.90	116	0.76
155	8.76	33.82	3.20	177	500	5.93	34.38	0.49	27.09	98	0.87
204	8.62	34.07	2.24	157	600	5.40	34.41	0.56	27.18	90	0.97
262	7.87	34.18	1.77	138							
365	7.26	34.38	0.84	122							
490	6.02	34.37	0.47	100							
623	5.33	34.41	0.59	88							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \frac{cm}{g}$	dyn. m

103.60

STRANGER; December 9, 1955; 2259 GCT; 30°07'N, 118°21'W; sounding, 1800 fm; wind, 340°, force 4; weather, fog; sea, moderate; wire angle, 12°.

0	16.0	33.51	5.74	332	0	16.0	33.51	5.74	24.63	332	0.00
10	15.76	33.51	5.63	328	10	15.76	33.51	5.63	24.68	328	0.03
30	15.66	33.51	5.53	326	20	15.67	33.51	5.56	24.68	327	0.07
39	15.62	33.49	-	326	30	15.66	33.51	5.53	24.69	326	0.10
49	14.44	33.40	5.52	308	50	14.37	33.40	5.50	24.89	307	0.16
58	-	33.39	5.41	-	75	12.63	33.39	5.35	25.23	274	0.23
68	13.14	33.40	5.32	283	100	11.00	33.40	4.93	25.55	244	0.30
77	-	33.39	5.35	-	150	9.12	33.74	3.29	26.14	189	0.41
86	11.78	33.37	5.21	260	200	8.34	33.96	(2.43)	26.44	160	0.50
96	11.17	33.39	-	248	250	7.62	34.00	(1.98)	26.57	148	0.58
119	10.00	33.44	4.39	225	300	7.08	34.05	(1.66)	26.69	136	0.65
148	9.15	33.71	3.33	191	400	6.29	34.20	1.07	26.91	116	0.78
195	8.40	33.95	2.48	163	500	5.87	34.27	0.65	27.02	105	0.90
253	7.56	34.00	2.55u	147	600	(5.30)	(34.36)	(0.27)	(27.16)	(92)	(1.00)
353	6.56	34.14	1.36	123							
470	6.00	34.26	0.76	107							
591	5.34	34.35	0.27	93							

107.32

STRANGER; December 11, 1955; 0105, 0150 GCT; 30°24.5'N, 116°10.5'W; sounding, 385 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 21°, 26°.

0	13.8	33.50	5.97	288	0	13.8	33.50	5.97	25.09	288	0.00
9	13.58	33.49	6.12	284	10	13.54	33.49	6.11	25.13	284	0.03
29	13.11	33.47	5.60	277	20	13.28	33.47	5.82	25.18	280	0.06
42	11.60	33.47	4.14	249	30	13.05	33.47	5.54	25.22	276	0.08
52	-	33.58	3.18	-	50	11.36	33.57	3.20	25.62	238	0.14
61	11.02	33.64	2.93	227	75	10.05	33.59	3.52	25.85	216	0.19
70	-	33.61	3.18	-	100	9.33	33.70	3.45	26.07	195	0.24
78	9.92	33.58	3.60	213	150	9.87	34.17	1.49	26.35	168	0.34
92	9.60	33.67	3.41	201	200	9.42	34.32	1.19	26.53	151	0.42
101	9.30	33.70	3.45	195	250	8.98	34.34	0.87	26.63	142	0.49
					300	8.41	34.35	0.72	26.72	133	0.56
121	10.32	34.07	1.53	183	400	7.30	34.35	0.56	26.90	117	0.69
145	9.96	34.16	1.51	171	500	6.20	34.34	0.40	27.03	104	0.81
193	9.50	34.31	1.26	152	600	(5.68)	(34.37)	(0.29)	(27.12)	(95)	(0.91)
250	8.98	34.34	0.87	142							
363	7.74	34.36	0.61	123							
467	6.49	34.34	0.45	108							
598	5.69	34.37	0.29	95							

107.35

STRANGER; December 11, 1955; 0358 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 12°.

0	15.5	33.61	5.75	314	0	15.5	33.61	5.75	24.82	314	0.00
9	15.49	33.60	5.74	315	10	15.48	33.60	5.75	24.81	314	0.03
31	15.27	33.58	5.79	312	20	15.39	33.59	5.77	24.82	314	0.06
45	12.54	33.58u	5.43	-	30	15.28	33.58	5.79	24.83	313	0.09
60	11.84	33.40	4.98	259	50	12.30	33.41	5.27	25.32	266	0.15
70	-	33.46u	4.79	-	75	11.11	33.40	4.64	25.53	246	0.22
79	10.90	33.40	4.47	242	100	9.78	33.65	3.42	25.96	206	0.27
94	-	33.60	3.65	-	150	8.90	33.93	2.14	26.32	172	0.37
103	9.64	33.68	3.31	201	200	8.37	34.00	1.65	26.46	158	0.45
118	9.32	33.78	2.90	188	250	7.77	34.02	1.50	26.56	148	0.53
145	8.98	33.89	2.30	175	300	7.04	34.15	1.29	26.77	128	0.60
172	8.63	34.00	1.76	162	400	6.55	34.25	0.89	26.90	116	0.73
227	8.07	34.00	1.59	154	500	6.03	34.33	0.68	27.04	102	0.84
292	7.14	34.13	1.35	131	600	5.50	34.38	0.53	27.15	92	0.94
404	6.54	34.25	0.86	115							
538	5.80	34.46u	0.61	-							
674	5.18	34.41	0.48	87							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

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STRANGER; December 11, 1955; 0725 GCT; 30°10'N, 116°43'W; sounding, 1500+ fm; wind, 330°, force 4; weather, missing; sea, rough; wire angle, 12°.

10740

0	16.0	33.62	5.47	324	0	16.0	33.62	5.47	24.71	324	0.00
10	15.96	33.62	5.51	324	10	15.96	33.62	5.51	24.72	324	0.03
29	15.68	33.62	5.63	317	20	15.84	33.62	5.58	24.74	321	0.06
45	14.56	33.49	5.68	304	30	15.64	33.62	5.64	24.79	317	0.10
55	13.36	33.39	5.61	287	50	13.94	33.43	5.68	25.01	296	0.16
63	-	33.40	5.32	-	75	11.22	33.45	4.59	25.54	245	0.23
74	11.26	33.45	4.63	245	100	10.26	33.56	3.85	25.81	220	0.28
83	-	33.48	4.26	-	150	8.92	33.91	2.79	26.31	172	0.38
98	10.33	33.55	3.92	222	200	8.43	34.04	2.32	26.46	158	0.47
107	10.02	33.61	3.67	213	250	7.98	34.15	1.67	26.63	142	0.54
131	9.28	33.86	2.94	182	300	7.40	34.19	1.19	26.74	132	0.61
159	8.79	33.93	2.72	170	400	6.58	34.23	0.61	26.90	117	0.74
210	8.37	34.09	2.19	151	500	5.79	34.29	0.43	27.04	103	0.86
271	7.68	34.17	1.42	136	600	5.36	34.37	0.32	27.16	92	0.96
380	6.73	34.22	0.75	120							
504	5.78	34.29	0.41	103							
636	5.22	34.40	0.28	88							

STRANGER; December 11, 1955; 1230, 1257 GCT; 29°49'N, 117°23.5'W; sounding, 1575 fm; wind, 340°, force 4; weather, missing; sea, slight; wire angle, 10°, 09°.

10750

0	15.8	33.53	5.68	327	0	15.8	33.53	5.68	24.68	327	0.00
10	15.74	33.51	5.74	327	10	15.74	33.51	5.74	24.68	327	0.03
30	15.77	33.51	5.72	328	20	15.76	33.51	5.72	24.68	328	0.07
41	15.46	33.49	5.66	323	30	15.77	33.51	5.72	24.67	328	0.10
51	14.66	33.33	5.63	318	50	14.82	33.34	5.63	24.77	318	0.16
61	-	33.34	5.63	-	75	12.79	33.37	5.31	25.20	278	0.24
70	13.16	33.34	5.50	287	100	11.32	33.47	5.06	25.54	245	0.30
79	-	33.40	5.22	-	150	9.34	33.77	3.48	26.12	190	0.42
89	11.90	33.40	5.28	260	200	8.40	33.96	2.53	26.42	162	0.50
98	11.43	33.46	5.13	247	250	7.78	34.09	2.06	26.61	144	0.58
122	9.94	33.49	4.32	220	300	7.22	34.14	1.52	26.73	132	0.65
150	9.34	33.77	3.48	190	400	6.40	34.23	0.80	26.92	114	0.78
196	8.43	33.95	2.54	163	500	5.80	34.35	0.41	27.09	98	0.89
252	7.74	34.09	2.04	143	600	(5.55)	(34.37)	(0.29)	(27.14)	(94)	(0.99)
351	6.76	34.18	1.04	123							
469	5.98	34.32	0.47	102							
591	5.57	34.37	0.29	94							

STRANGER; December 11, 1955; 1750, 1832 GCT; 29°28.5'N, 118°01'W; sounding, 1800 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 05°, 07°.

10760

0	16.5	33.67	5.63	332	0	16.5	33.67	5.63	24.63	332	
10	16.54	33.66	5.67	333	10	16.54	33.66	5.67	24.62	333	
30	16.56	33.68	5.65	332	20	16.55	33.67	5.66	24.63	332	
45	16.52	33.70	5.67	330	30	16.56	33.68	5.65	24.63	332	
					50	16.4					
303	7.40	34.06	2.71	140	75	14.9					
380	6.64a)	34.15	1.40	124	100	13.9					
506	6.18	34.32	0.52	105	150	10.2					
639	5.52	34.37	0.37	94	200	8.7					
					250	8.0					
					300	(7.42)	(34.06)	(2.73)			
					400	6.51	34.19	1.20			
					500	6.20	34.31	0.57			
					600	5.78	34.35	0.41			

a) Mean value of 6.60 and 6.67°C.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

110.33

STRANGER; December 13, 1955; 0830 GCT; 29°50.5'N, 115°52'W; sounding, 50 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	13.20	33.54	5.70	274	0	13.20	33.54	5.70	25.24	274	0.00
10	13.21	33.55	5.51	273	10	13.21	33.55	5.51	25.25	273	0.03
20	13.10	33.55	5.54	271	20	13.10	33.55	5.54	25.27	271	0.05
30	12.98	33.54	5.49	269	30	12.98	33.54	5.49	25.29	269	0.08
50	12.08	33.55	3.95	252	50	12.08	33.55	3.95	25.46	252	0.13
75	11.34	33.62	2.89	234	75	11.34	33.62	2.89	25.66	234	0.19

110.35

STRANGER; December 13, 1955; 0526, 0619 GCT; 29°45'N, 115°59.5'W; sounding, 700 fm; wind, 330°, force 1; weather, missing; sea, moderate; wire angle, 12°, 19°.

0	15.7	33.58	5.80	321	0	15.7	33.58	5.80	24.74	321	0.00
10	15.42	33.58	5.79	315	10	15.42	33.58	5.79	24.81	315	0.03
29	14.00	33.50	6.06	292	20	14.79	33.55	5.92	24.92	305	0.06
43	13.27	33.49	5.94	279	30	13.98	33.50	6.06	25.05	292	0.09
54	-	33.51u	5.02	-	50	12.73	33.48	5.47	25.29	269	0.15
64	11.38	33.44	4.61	248	75	10.63	33.48	4.22	25.68	232	0.21
73	-	33.47	4.26	-	100	9.84	33.59	3.50	25.89	212	0.27
82	10.38	33.53	3.95	224	150	9.77	34.08	2.10	26.29	174	0.36
96	9.98	33.57	3.58	214	200	9.70	34.27	1.38	26.46	158	0.45
105	9.76	33.62	3.41	208	250	9.46	34.38	1.01	26.58	146	0.53
130	9.40	33.81	2.94	188	300	8.87	34.37	0.85	26.66	138	0.60
					400	7.47	34.32	0.61	26.84	122	0.74
152	9.74	34.08	2.06	173	500	6.41	34.31	0.34	26.98	109	0.86
201	9.70	34.28	1.33	158	600	5.60	34.38	0.30	27.13	94	0.96
260	9.38	34.38	0.98	145							
366	7.90	34.33	0.68	127							
487	6.52	34.31	0.46	110							
617	5.45	34.40	0.28	91							

110.40

STRANGER; December 13, 1955; 0145 GCT; 29°33.5'N, 116°20'W; sounding, 1100 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 18°.

0	15.0	33.53	6.04	310	0	15.0	33.53	6.04	24.86	310	0.00
11	14.91	33.53	6.09	308	10	14.91	33.53	6.09	24.88	308	0.03
25	14.75	33.51	6.07	306	20	14.82	33.52	6.08	24.89	307	0.06
54	13.70	33.51	5.88	285	30	14.66	33.51	6.07	24.92	304	0.09
63	-	33.43u	4.89	-	50	13.90	33.51	5.93	25.08	289	0.15
73	11.58	33.47	4.61	249	75	11.20	33.48	4.48	25.58	242	0.22
86	10.30	33.57	3.98	220	100	10.14	33.76	2.90	25.98	204	0.28
105	-	33.80	2.80	-	150	9.49	33.96	2.52	26.25	178	0.37
129	9.98	33.96	2.33	186	200	8.77	34.06	2.40	26.44	160	0.46
157	9.36	33.96	2.57	176	250	8.09	34.12	1.95	26.59	146	0.53
208	8.66	34.07	2.34	157	300	7.49	34.17	1.34	26.72	134	0.61
282	7.66	34.15	1.59	137	400	6.91	34.28	0.97	26.89	117	0.74
387	6.96	34.27	0.98	118	500	6.40	34.35	0.55	27.01	106	0.85
525	6.22	34.36	0.44	103	600	5.72	34.39	0.44	27.13	94	0.96
711	4.85	34.43	0.49	82	700	4.93	34.43	0.48	27.25	83	1.05
943	4.10	34.47	0.68	71	800	4.42	34.45	0.58	27.33	76	1.14
1248	3.42	34.53	1.01	60	1000	3.99	34.48	0.75	27.40	68	1.30

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

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STRANGER; December 12, 1955; 2018 GCT; 29°16'N, 116°59'W; sounding, 1900 fm; wind, 340°, force 1; weather, partly cloudy; sea, moderate; wire angle, 02°.

110.50

0	16.0	33.58	5.90	327	0	16.0	33.58	5.90	24.68	327	0.00
11	15.98	33.53	-	330	10	15.98	33.53	5.92	24.65	330	0.03
26	15.98	33.54	5.94	330	20	15.98	33.53	5.94	24.65	330	0.07
56	13.90	33.37	5.48u	300	30	15.98	33.54	5.94	24.66	330	0.10
66	-	33.46u	5.89	-	50	14.84	33.44	5.94	24.83	313	0.16
76	12.76	33.31	5.77	282	75	12.83	33.31	5.79	25.15	282	0.24
91	-	33.37u	5.53	-	100	11.40	33.36	5.32	25.45	254	0.30
110	10.78	33.40	5.08	240	150	9.78	33.74	3.67	26.02	200	0.42
134	9.64	33.51	4.49	214	200	8.41	33.96	3.11	26.42	162	0.51
163	8.96	33.74	3.52	186	250	7.90	34.05	2.61	26.57	148	0.59
216	8.24	34.02	2.99	155	300	7.28	34.09	1.80	26.69	136	0.66
293	7.35	34.08	1.95	138	400	6.80	34.25	0.80	26.88	118	0.80
398	6.81	34.25	0.81	119	500	6.30	34.32	0.58	27.00	107	0.91
538	6.07	34.34	0.52	102	600	5.68	34.37	0.47	27.12	96	1.02
726	4.96	34.42	0.45	83	700	5.10	34.41	0.45	27.22	86	1.12
960	4.09	34.49	0.74	69	800	4.73	34.44	0.51	27.29	79	1.21
1265	3.32	-	1.18	-	1000	3.95	(34.50)	0.81	(27.41)	(68)	(1.37)

STRANGER; December 12, 1955; 1430 GCT; 28°56.5'N, 117°44.5'W; sounding, 2000 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 08°.

110.60

0	16.0	33.50	5.81	333	0	16.0	33.50	5.81	24.62	333	0.00
10	15.94	33.49	5.84	332	10	15.94	33.49	5.84	24.62	332	0.03
25	15.97	33.51	5.81	332	20	15.96	33.50	5.83	24.63	332	0.07
51	15.75	33.48	5.78	330	30	15.95	33.51	5.80	24.63	332	0.10
60	-	-	5.77	-	50	15.78	33.48	5.78	24.65	330	0.16
70	14.34	33.48	5.85	300	75	13.97	33.49	5.80	25.05	292	0.24
81	-	33.49	5.73	-	100	12.36	33.42	5.37	25.31	267	0.31
100	12.36	33.42	5.37	267	150	9.95	33.64	3.78	25.92	209	0.43
123	10.56	33.42	4.87	235	200	9.15	34.00	2.87	26.33	170	0.53
153	9.89	33.68	3.68	205	250	9.22	34.27	1.40	26.52	152	0.61
201	9.14	34.00	2.86	170	300	8.77	34.33	1.06	26.65	140	0.69
267	9.21	34.33	1.21	147	400	7.30	34.31	0.71	26.86	120	0.82
366	7.66	34.31	0.89	126	500	6.57	34.34	0.40	26.99	108	0.94
491	6.59	34.34	0.42	109	600	5.97	34.37	0.35	27.09	98	1.05
667	5.48	34.39	0.34	92	700	5.27	34.41	0.36	27.20	88	1.15
886	4.50	34.49	0.45	74	800	4.79	34.46	0.41	27.30	78	1.25
1184	3.62	34.53	0.77	62	1000	4.20	34.51	0.54	27.40	68	1.40

STRANGER; December 12, 1955; 0852 GCT; 28°38.5'N, 118°19'W; sounding, 1900 fm; wind, 340°, force 1; weather, missing; sea, rough; wire angle, 09°.

110.70

0	16.2	33.60a)	5.70b)	330	0	16.2	33.60	5.70	24.65	330	0.00
10	16.10	33.56	5.62	331	10	16.10	33.56	5.62	24.64	331	0.03
26	16.04	33.57	5.60	329	20	16.06	33.56	5.61	24.65	330	0.07
56	15.94	33.56	5.63	327	30	16.03	33.57	5.60	24.67	328	0.10
75	14.54	33.47	5.83	305	50	15.95	33.56	5.63	24.68	328	0.16
90	-	33.38	5.66	-	75	14.54	33.47	5.83	24.91	305	0.24
109	11.22	33.39	5.10	249	100	11.75	33.38	5.41	25.40	258	0.32
132	10.50	33.54	4.04	225	150	10.18	33.91	2.45	26.10	192	0.43
159	10.10	34.04	2.16	182	200	9.17	34.06	2.24	26.38	166	0.52
211	9.93	34.26	1.36	162	250	9.77	34.30	1.15	26.47	157	0.60
287	9.22	34.27	1.45	151	300	9.02	34.27	1.43	26.56	148	0.68
390	7.64	34.27	0.83	128	400	7.52	34.27	0.76	26.80	126	0.83
528	6.39	34.33	0.37	107	500	6.55	34.32	0.41	26.96	110	0.95
714	5.18	34.42	0.35	86	600	5.97	34.36	0.35	27.08	99	1.06
945	4.30	34.46	0.50	74	700	5.25	34.41	0.35	27.20	88	1.16
1248	3.46	34.54	0.87	60	800	4.72	34.44	0.41	27.29	79	1.25
					1000	4.16	34.47	0.56	27.38	71	1.42

a) Loose bottle cap; value falls on property curve.

b) Original observed data sheet lost. These values were read from points plotted from the original data.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

110.80

STRANGER; December 12, 1955; 0328 GCT; 28°19.5'N, 118°54'W; sounding, 2000+ fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 12°.

0	16.8	33.61	6.34u	343	0	16.8	33.61		24.51	343	0.00	
10	16.72	33.62	5.72	340	10	16.72	33.62	5.72	24.54	340	0.03	
31	16.63	33.64	6.61u	337	20	16.65	33.63		24.56	338	0.07	
54	16.60	33.63	5.97u	337	30	16.63	33.64		24.58	337	0.10	
72p	15.38	33.55	5.44	316	50	16.60	33.63		24.58	337	0.17	
97p	-	33.46	5.23	-	75	15.12	33.54	5.40	24.84	312	0.25	
130p	10.66	33.62	3.55	222	100	13.00	33.46	5.16	25.22	276	0.33	
154p	9.99	33.82	2.84	196	150	10.00	33.81	2.86	26.04	198	0.44	
212p	9.65	34.18	2.45	165	200	9.88	34.15	2.48	26.33	170	0.54	
293p	8.68	34.29	1.65	141	250	9.14	34.24	2.04	26.53	152	0.62	
404p	7.45	34.32	1.01	122	300	8.60	34.29	1.60	26.65	140	0.70	
553p	6.24	34.42	0.47	99	400	7.50	34.32	1.04	26.83	122	0.83	
757p	5.03	34.49	0.40	79	500	6.68	34.37	0.60	26.98	108	0.95	
1001p	4.10	34.54	0.79	66	600	5.98	34.45	0.42	27.14	93	1.06	
1328p	3.28	34.57	1.08	56	700	5.38	34.47	0.40	27.24	84	1.15	
					800	4.82	34.50	0.46	27.32	76	1.24	
					1000	4.10	34.54	0.79	27.43	66	1.40	

113.30

STRANGER; December 13, 1955; 1330 GCT; 29°22.5'N, 115°18'W; sounding, 30 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 02°.

0	14.85	33.60	5.74	302	0	14.85	33.60	5.74	24.95	302	0.00	
10	14.88	33.60	5.74	302	10	14.88	33.60	5.74	24.94	302	0.03	
20	13.68	33.57	4.72	280	20	13.68	33.57	4.72	25.17	280	0.06	
30	11.68	33.58	3.45	243	30	11.68	33.58	3.45	25.57	243	0.09	

113.35

STRANGER; December 13, 1955; 1614 GCT; 29°11.5'N, 115°40'W; sounding, 500+ fm; wind, 310°, force 2; weather, partly cloudy; sea, moderate; wire angle, 01°.

0	15.1	33.55	5.83	310	0	15.1	33.55	5.83	24.86	310	0.00	
10	15.07	33.55	5.87	310	10	15.07	33.55	5.87	24.86	310	0.03	
30	14.26	33.48	5.96	299	20	14.72	33.53	5.92	24.92	304	0.06	
41	13.80	33.49	5.64	289	30	14.26	33.48	5.96	24.98	299	0.09	
52	12.14	33.42	5.03	263	50	12.50	33.43	5.18	25.30	268	0.15	
62	-	33.42	4.61	-	75	10.70	33.54	3.82	25.72	228	0.21	
70	10.88	33.51	4.04	234	100	9.79	33.69	3.37	25.98	203	0.26	
81	-	33.66u	3.48u	-	150	8.60	33.91	2.70	26.35	168	0.36	
90	10.20	33.64	3.43	213	200	8.14	34.02	2.68	26.51	154	0.44	
100	9.79	33.69	3.37	203	250	8.13	34.16	1.93	26.62	143	0.52	
124	9.28	33.89	2.92	180	300	7.72	34.20	1.51	26.72	134	0.59	
152	8.58	33.91	2.70	168	400	7.00	34.28	0.71	26.88	118	0.72	
200	8.14	34.02	2.68	154	500	6.28	34.34	0.62	27.02	105	0.83	
256	8.04	34.16	1.90	142	600	(5.62)	(34.39)	(0.51)	(27.14)	(94)	(0.94)	
356	7.34	34.25	0.78	125								
471	6.44	34.33	0.65	108								
595	5.66	34.38	0.51	95								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; December 13, 1955; 1926 GCT; 29°02'N, 115°58.5'W; sounding, 900 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, missing.

113.40

0	15.0	33.57a)	5.92	307	0	15.0	33.57	5.92	24.89	307	0.00
10	14.61	33.51	5.92	304	10	14.61	33.51	5.92	24.92	304	0.03
30	12.86	33.48	5.11	271	20	14.27	33.50	5.82	24.99	298	0.06
40	12.12	33.48	4.63	258	30	12.86	33.48	5.11	25.26	271	0.09
51	11.17	33.46	4.12	243	50	11.23	33.46	4.14	25.56	243	0.14
61	-	33.49	4.02	-	75	10.27	33.53	3.71	25.78	222	0.20
71	10.48	33.50	3.85	228	100	9.46	33.69	3.22	26.04	198	0.25
80	-	33.58	3.59	-	150	9.20	34.07	2.20	26.38	166	0.34
90	9.60	33.67	3.35	202	200	9.30	34.29	1.22	26.54	150	0.42
100	9.46	33.69	3.22	198	250	8.62	34.33	0.86	26.67	138	0.50
124	9.07	33.84	2.81	181	300	7.92	34.33	0.81	26.78	127	0.57
153	9.20	34.08	2.14	165	400	6.67	34.34	0.60	26.96	110	0.69
201	9.28	34.29	1.19	150	500	6.02	34.36	0.39	27.06	100	0.80
258	8.52	34.33	0.85	136	600	(5.62)	(34.39)	(0.31)	(27.14)	(93)	(0.90)
359	7.16	34.33	0.75	117							
475	6.13	34.35	0.41	102							
599	5.62	34.39	0.31	93							

STRANGER; December 14, 1955; 0022 GCT; 28°42'N, 116°37'W; sounding, 2100 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

113.50

0	16.7	33.64	5.79	338	0	16.7	33.64	5.79	24.56	338	0.00
11	16.18	33.62	5.79	328	10	16.20	33.62	5.79	24.66	329	0.03
31	15.72	33.62	5.91	318	20	15.99	33.62	5.85	24.71	324	0.07
41	15.42	33.58	5.86	315	30	15.76	33.62	5.89	24.77	318	0.10
51	14.38	33.48	5.84	301	50	14.48	33.48	5.84	24.95	301	0.16
61	-	33.40	5.66	-	75	11.85	33.37	5.18	25.37	261	0.23
70	12.21	33.35	5.43	269	100	10.17	33.54	4.00	25.81	220	0.29
79	-	33.40	4.93	-	150	10.29	34.20	1.73	26.30	173	0.39
90	10.77	33.48	4.47	234	200	9.88	34.34	1.26	26.48	156	0.47
99	10.18	33.54	4.02	220	250	9.45	34.42	0.75	26.61	144	0.55
123	9.70	33.80	3.00	193	300	8.73	34.39	0.71	26.71	134	0.62
152	10.24	34.21	1.71	172	400	7.42	34.36	0.61	26.88	118	0.75
200	9.88	34.34	1.26	156	500	6.92	34.41	0.48	26.99	108	0.87
257	9.38	34.42	0.73	142	600	5.88	34.38	0.30	27.10	97	0.98
360	7.78	34.33	0.70	125							
478	7.08	34.41	0.51	110							
601	5.84	34.38	0.30	97							

STRANGER; December 14, 1955; 0510 GCT; 28°22'N, 117°16'W; sounding, 1200+ fm; wind, 330°, force 1; weather, partly cloudy; sea, moderate; wire angle, 01°.

113.60

0	16.1	33.62	6.08	326	0	16.1	33.62	6.08	24.69	326	0.00
10	16.08	33.68	5.87	321	10	16.08	33.68	5.87	24.74	321	0.03
30	15.97	33.66	5.83	321	20	16.03	33.67	5.84	24.74	321	0.06
40	13.01	33.55	4.44	269	30	15.97	33.66	5.83	24.74	321	0.10
51	-	33.54	4.02	-	50	12.20	33.54	4.03	25.44	255	0.15
61	11.52	33.61	3.53	237	75	10.73	33.64	3.43	25.79	222	0.21
72	-	33.64	3.42	-	100	10.29	33.90	2.45	26.06	195	0.27
82	10.35	33.64	3.46	216	150	9.35	34.07	2.38	26.35	168	0.36
90	9.95	33.71	3.32	204	200	9.38	34.30	1.44	26.53	151	0.44
100	10.29	33.90	2.45	195	250	9.08	34.37	1.21	26.63	142	0.51
124	10.34	34.11	1.91	180	300	8.58	34.39	0.89	26.73	132	0.58
153	9.30	34.07	2.39	167	400	7.50	34.41	0.42	26.90	116	0.71
201	9.38	34.30	1.42	151	500	6.68	34.44	0.35	27.05	102	0.83
259	9.02	34.37	1.18	140	600	(5.63)	(34.41)	(0.39)	(27.16)	(92)	(0.93)
359	7.88	34.40	0.54	121							
476	6.92	34.44	0.34	105							
598	5.64	34.41	0.39	92							

a) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m	

113.70

STRANGER; December 14, 1955; 1020 GCT; 28°02'N, 117°55'W; sounding, 1800 fm; wind, 330°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

0	16.5	33.75	5.72	326	0	16.5	33.75	5.72	24.69	326	0.00
10	16.64	33.72	5.69	332	10	16.64	33.72	5.69	24.64	332	0.03
31	16.55	33.73	5.64	328	20	16.63	33.73	5.66	24.65	330	0.07
41	16.36	33.68	5.60	328	30	16.58	33.73	5.65	24.67	329	0.10
50	-	33.60	5.65	-	50	15.25	33.60	5.65	24.86	310	0.16
59	12.22	33.47	4.77	261	75	11.50	33.59	3.85	25.61	238	0.23
69	-	33.52	4.40	-	100	10.30	33.77	2.95	25.96	205	0.29
78	11.40	33.62	3.61	235	150	9.34	34.06	2.34	26.35	168	0.38
89	11.12	33.71	3.01	223	200	8.41	34.10	2.24	26.53	152	0.46
98	10.40	33.77	2.97	207	250	7.90	34.19	1.60	26.68	138	0.54
122	9.36	33.82	2.78	186	300	7.32	34.18	1.39	26.75	130	0.61
150	9.34	34.06	2.34	168	400	6.06	34.18	0.95	26.92	114	0.73
198	8.42	34.09	2.25	152	500	5.57	34.31	0.55	27.09	98	0.84
255	7.84	34.19	1.58	137	600	(5.22)	(34.38)	(0.38)	(27.18)	(90)	(0.94)
355	6.44	34.15	1.16	121							
472	5.62	34.28	0.62	102							
596	5.24	34.38	0.38	90							

117.26

BLACK DOUGLAS; December 14, 1955; 1910 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 280°, force 1; weather, fog; sea, slight; wire angle, 00°.

0	16.10	33.64	5.99	325	0	16.10	33.64	5.99	24.70	325	0.00
10	15.99	33.65	6.02	322	10	15.99	33.65	6.02	24.73	322	0.03
15	15.94	33.64	5.99	322	20	14.70	33.57	5.53	24.96	301	0.06
20	14.70	33.57	5.53	301	30	12.70	33.49	4.09	25.31	267	0.09
24	13.67	33.51	4.67	285	50	11.02	33.60	2.56	25.70	230	0.14
29	12.76	33.49	4.09	268							
34	12.33	33.50	4.06	260							
39	11.56	33.50	3.50	246							
48	11.08	33.57	2.73	233							
58	10.92	33.69	1.89	221							

117.30

BLACK DOUGLAS; December 14, 1955; 2153 GCT; 28°48'N, 114°56.5'W; sounding, 57 fm; wind, 280°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.90	33.53	6.59	308	0	14.90	33.53	6.59	24.88	308	0.00
10	14.19	33.50	6.65	296	10	14.19	33.50	6.65	25.01	296	0.03
15	14.13	33.53	6.80	292	20	14.01	33.53	6.62	25.06	290	0.06
19	14.02	33.52	6.57	291	30	13.68	33.49	5.73	25.11	286	0.09
24	14.01	33.53	6.75	290	50	11.67	33.56	4.13	25.55	244	0.14
29	13.76	33.49	6.04	288	75	10.27	33.71	3.02	25.92	209	0.20
33	13.41	33.53	5.08	278							
43	12.19	33.55	4.27	254							
53	11.42	33.57	4.04	239							
62	10.90	33.62	3.57	226							
77	10.22	33.71	3.01	208							

117.35

BLACK DOUGLAS; December 15, 1955; 0055 GCT; 28°38'N, 115°16'W; sounding, 120 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

0	15.46	33.58	5.86	316	0	15.46	33.58	5.86	24.80	316	0.00
10	15.37	33.58	5.86	314	10	15.37	33.58	5.86	24.82	314	0.03
15	15.34	33.58	5.83	313	20	15.26	33.57	5.81	24.84	312	0.06
19	15.26	33.57	5.81	312	30	13.85	33.54	5.50	25.11	286	0.09
24	14.88	33.58	5.79	304	50	12.44	33.49	4.67	25.34	264	0.15
29	13.97	33.54	5.53	288	75	11.46	33.61	3.72	25.63	237	0.21
33	13.60	33.53	5.38	282	100	10.69	33.87	2.67	25.97	204	0.27
43	13.14	33.51	4.95	274	150	(10.40)	(34.29)	(1.47)	(26.35)	(168)	(0.36)
53	12.28	33.49	4.60	260							
62	12.04	33.53	4.35	253							
77	11.32	33.64	3.58	232							
96	10.69	33.81	2.76	209							
115	10.80	34.04	2.12	194							
149	10.41	34.29	1.48	168							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{10}^{-5}	Z	T	S	O ₂	σ_t	δT_{10}^{-5}	ΔD
m	°C	‰	ml/L	cm ³ /g	m	°C	‰	ml/L	g/L	cm ³ /g	dyn. m

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STRANGER; December 15, 1955; 0641 GCT; 28°28'N, 115°35.5'W; sounding, 300 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.

117.40

0	15.3	33.62	6.01	310	0	15.3	33.62	6.01	24.86	310	0.00
10	15.42	33.60	6.00	314	10	15.42	33.60	6.00	24.82	314	0.03
15	15.41	33.59	5.90	314	20	14.97	33.58	5.70	24.91	306	0.06
20	14.97	33.58	5.70	306	30	13.95	33.47	5.23	25.05	292	0.09
25	14.48	33.57	5.25	296	50	12.29	33.43	4.89	25.34	264	0.15
30	-	33.47	5.23	-	75	10.90	33.48	4.08	25.64	236	0.21
40	13.05	33.43	5.21	279	100	9.81	33.68	3.48	25.98	204	0.26
51	-	33.44	4.88	-	150	10.46	34.30	2.76	26.35	169	0.36
66	11.26	33.48	4.34	243	200	9.98	34.44	0.98	26.54	150	0.44
80	10.68	33.48	3.95	233	250	9.42	34.42	0.78	26.62	143	0.51
100	9.81	33.68	3.48	204	300	9.03	34.41	0.78	26.67	138	0.59
124	10.66	34.10	2.92	187	400	8.16	34.40	0.58	26.80	126	0.72
163	10.56	34.40	1.95	163							
201	9.96	34.44	0.93	150							
250	9.42	34.42	0.78	143							
323	8.86	34.40	0.77	136							
402	8.14	34.40	0.56	125							

STRANGER; December 15, 1955; 0124 GCT; 28°11'N, 116°17'W; sounding, 2000+ fm; wind, 010°, force 1; weather, cloudy; sea, moderate; wire angle, 01°.

117.50

0	15.9	33.63	6.09	322	0	15.9	33.63	6.09	24.74	322	0.00
10	15.79	33.62	6.06	320	10	15.79	33.62	6.06	24.76	320	0.03
30	15.08	33.57	5.67	309	20	15.77	33.62	6.02	24.77	318	0.06
40	13.73	33.44	5.64	290	30	15.08	33.57	5.67	24.87	309	0.10
50	12.97	33.40	5.34	279	50	12.97	33.40	5.34	25.19	279	0.15
60	-	33.43	4.95	-	75	10.91	33.50	4.50	25.65	235	0.22
70	11.21	33.48	4.51	242	100	10.94	34.11	1.76	26.12	190	0.27
81	-	33.52	4.17	-	150	10.62	34.33	1.33	26.34	169	0.36
91	10.58	33.75	2.73	211	200	10.06	34.47	0.92	26.55	150	0.44
100	10.94	34.11	1.76	190	250	9.61	34.47	0.78	26.62	142	0.52
124	10.86	34.29	1.44	176	300	9.18	34.46	0.68	26.69	136	0.59
152	10.61	34.34	1.31	168	400	8.05	34.42	0.51	26.84	122	0.72
200	10.06	34.47	0.92	150	500	6.74	34.42	0.40	27.02	104	0.84
256	9.58	34.47	0.75	142	600	(6.03)	(34.43)	(0.36)	(27.12)	(96)	(0.95)
360	8.55	34.43	0.56	129							
471	7.06	34.42	0.42	109							
594	6.09	34.43	0.36	96							

STRANGER; December 14, 1955; 2018 GCT; 27°49'N, 116°53'W; sounding, 1800 fm; wind, 010°, force 3; weather, partly cloudy; sea, moderate; wire angle, 04°.

117.60

0	16.6	33.63	5.60	337	0	16.6	33.63	5.60	24.58	337	0.00
10	16.48	33.64	5.65	334	10	16.48	33.64	5.65	24.61	334	0.03
31	16.26	33.61	5.73	331	20	16.40	33.63	5.69	24.63	332	0.07
40	15.76	33.58	5.78	322	30	16.28	33.61	5.71	24.64	331	0.10
50	13.73	33.42	5.68	292	50	13.73	33.42	5.68	25.04	292	0.16
60	-	33.48u	5.60u	-	75	11.84	33.57	3.95	25.53	246	0.23
69	11.80	33.49	4.44	251	100	10.75	33.81	2.65	25.92	210	0.29
79	-	33.65	3.41	-	150	8.87	33.92	2.95	26.32	172	0.38
89	10.80	33.60	3.61	226	200	8.42	34.11	2.40	26.54	150	0.46
99	10.74	33.80	2.67	210	250	7.93	34.23	1.45	26.70	135	0.54
123	9.66	33.82	2.81	191	300	7.69	34.34	0.51	26.82	124	0.60
151	8.86	33.92	2.96	172	400	7.25	34.45	0.26	26.97	110	0.72
198	8.44	34.11	2.43	151	500	6.32	34.46	0.21	27.11	96	0.83
256	7.88	34.25	1.24	133	600	(5.72)	(34.42)	(0.26)	(27.16)	(92)	(0.93)
357	7.55	34.41	0.34	116							
473	6.54	34.47	0.21	99							
596	5.74	34.42	0.25	92							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{cm/g}$	dyn. m	

117.70

STRANGER; December 14, 1955; 1509 GCT; 27°28'N, 117°32.5'W; sounding, 1800 fm; wind, 040°, force 3; weather, fog; sea, moderate; wire angle, 04°.

0	16.7	33.68	5.60	335	0	16.7	33.68	5.60	24.59	335	0.00
10	16.71	33.62	5.65	340	10	16.71	33.62	5.65	24.54	340	0.03
30	16.68	33.62	5.62	340	20	16.70	33.62	5.64	24.55	340	0.07
41	16.58	33.58	5.62	339	30	16.68	33.62	5.62	24.55	340	0.10
50	-	33.49	5.85	-	50	15.97	33.49	5.85	24.61	334	0.17
61	13.49	33.39	5.69	290	75	12.69	33.40	5.32	25.24	274	0.24
71	-	33.40	5.41	-	100	11.06	33.46	4.89	25.59	241	0.31
81	12.36	33.40	5.23	268	150	9.14	33.80	3.47	26.18	184	0.42
91	11.66	33.40	5.07	256	200	8.22	33.97	3.09	26.45	159	0.50
100	11.06	33.46	4.89	241	250	7.67	34.07	2.33	26.62	143	0.58
123	10.00	33.64	3.73	210	300	7.22	34.20	1.51	26.81	125	0.65
153	9.06	33.81	3.45	183	400	6.53	34.27	0.69	26.93	113	0.78
200	8.22	33.97	3.09	159	500	5.98	34.32	0.39	27.05	102	0.89
258	7.58	34.09	2.20	140	600	(5.20)	(34.36)	(0.33)	(27.17)	(90)	(0.99)
358	6.80	34.23	0.97	120							
474	6.10	34.31	0.41	105							
599	5.20	34.36	0.33	90							

120.25

BLACK DOUGLAS; December 14, 1955; 1356 GCT; 28°23'N, 114°14.5'W; sounding, 31 fm; wind, 300°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	15.95	33.73	6.90	315	0	15.95	33.73	6.90	24.80	315	0.00
10	15.96	33.71	5.86	317	10	15.96	33.71	5.86	24.79	317	0.03
15	15.94	33.73	5.84	315	20	15.22	33.63	5.52	24.89	307	0.06
19	15.69	33.69	5.71	313	30	12.90	33.52	4.24	25.30	268	0.09
24	14.12	33.53	5.01	292							
29	13.01	33.53	4.27	270							
33	12.44	33.51	4.15	262							
38	11.68	33.56	3.64	244							

120.30

BLACK DOUGLAS; December 14, 1955; 1033 GCT; 28°13'N, 114°34'W; sounding, 52 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	16.44	33.62	5.60	334	0	16.44	33.62	5.60	24.61	334	0.00
10	16.50	33.62	5.59	336	10	16.50	33.62	5.59	24.59	336	0.03
15	16.48	33.64	5.63	334	20	16.44	33.63	5.61	24.62	333	0.07
19	16.44	33.64	5.61	333	30	16.09	33.63	5.75	24.69	326	0.10
24	16.41	33.63	5.66	333	50	13.30	33.48	5.14	25.18	280	0.16
29	16.16	33.62	5.77	328	75	11.12	33.65	2.96	25.73	227	0.22
34	15.92	33.66a)	5.69	319							
43	14.40	33.55	5.35	296							
53	12.90	33.47	5.02	273							
62	11.86	33.49	4.40	253							
77	11.02	33.68	2.69	224							

120.35

BLACK DOUGLAS; December 14, 1955; 0722, 0731 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 350°, force 1; weather, clear; sea, smooth; wire angle, 00°, 00°.

0	16.44	33.66	6.88	331	0	16.44	33.66	6.88	24.64	331	0.00
10	16.42	33.66	5.99	331	10	16.42	33.66	5.99	24.64	331	0.03
					20	16.14	33.65	5.98	24.70	325	0.07
15	16.22	33.66	6.07	326	30	15.93	33.64	5.89	24.74	322	0.10
19	16.16	33.65	6.01	325	50	14.83	33.57	5.38	24.91	305	0.16
24	16.08	33.65	5.90	324							
29	15.93	33.64	5.90	322							
33	15.94	33.63	5.70	322							
38	15.82	33.62	5.81	321							
48	15.18	33.58	5.53	310							
57	13.70	33.52	4.86	284							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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BLACK DOUGLAS; December 14, 1955; 0430 GCT; 27°56.5'N, 115°14'W; sounding, 21 fm; wind, calm; weather, clear; sea, calm; wire angle, 00°.

120.40

0	13.70	33.58	4.83	280	0	13.70	33.58	4.83	25.18	280	0.00
10	13.71	33.58	5.31	280	10	13.71	33.58	5.31	25.18	280	0.03
14	13.70	33.58	5.40	280	20	13.67	33.61	5.40	25.21	277	0.06
19	13.66	33.61	5.35	277							
24	13.68	33.61	5.40	277							
28	13.01	33.67	4.32	260							

BLACK DOUGLAS; December 14, 1955; 0139 GCT; 27°44'N, 115°30'W; sounding, 900 fm; wind, 300°, force 1; weather, fog; sea, slight; wire angle, 09°.

120.45

0	16.6	33.68	5.63	333	0	16.6	33.68	5.63	24.62	333	0.00
9	16.64	33.69	5.64	333	10	16.63	33.69	5.64	24.62	333	0.03
28	15.55	33.51	5.90	323	20	16.20	33.61	5.78	24.66	329	0.07
37	14.76	33.51	5.81	306	30	15.35	33.50	5.90	24.76	319	0.10
46	14.40	33.60	4.79	293	50	14.20	33.60	4.72	25.09	288	0.16
55	13.58	33.58	4.60	278	75	11.72	33.60	3.80	25.58	242	0.23
64	12.27	33.55	4.32	256	100	10.30	33.74	3.42	25.93	208	0.28
73	11.92	33.60	3.82	245	150	9.47	34.07	2.22	26.34	170	0.38
82	10.87	33.58	3.78	228	200	9.53	34.31	1.27	26.51	153	0.46
91	10.28	33.58	3.77	219	250	8.78	34.33	1.04	26.66	139	0.53
114	10.43	34.00	2.08	190	300	8.40	34.35	0.81	26.73	132	0.60
142	9.47	34.04	2.38	172	400	7.55	34.35	0.43	26.86	120	0.74
187	9.64	34.29	1.39	156	500	6.60	34.35	0.31	26.99	108	0.85
242	8.86	34.33	1.09	141							
340	8.12	34.36	0.62	128							
451	7.02	34.34	0.34	114							
570	6.02	34.38	0.28	99							

BLACK DOUGLAS; December 13, 1955; 2222 GCT; 27°33'N, 115°52.5'W; sounding, 2200 fm; wind, 360°, force 1; weather, clear; sea, slight; wire angle, 00°.

120.50

0	17.4	33.66	5.60	352	0	17.4	33.66	5.60	24.41	352	0.00
9	16.90	33.72	5.64	337	10	16.89	33.72	5.64	24.58	337	0.03
28	16.86	33.70	5.62	337	20	16.88	33.72	5.64	24.58	337	0.07
37	16.84	33.70	5.55	337	30	16.86	33.70	5.61	24.58	337	0.10
47	16.26	33.62	5.64	330	50	15.31	33.53	5.62	24.77	318	0.17
56	13.35	33.41	5.43	286	75	11.83	33.44	5.04	25.43	256	0.24
65	12.51	33.41	5.26	270	100	10.73	33.64	3.48	25.78	222	0.30
75	11.83	33.44	5.04	256	150	8.82	34.01	3.00	26.39	164	0.40
84	11.37	33.57	3.84	238	200	8.93	34.20	1.93	26.53	151	0.48
93	11.04	33.63	3.39	228	250	8.50	34.28	1.48	26.66	139	0.55
117	9.66	33.64	3.93	205	300	8.23	34.34	0.75	26.74	132	0.62
144	8.82	33.86	3.37	176	400	7.48	34.45	0.35	26.94	112	0.75
191	8.96	34.17	2.01	154	500	6.55	34.44	0.28	27.06	101	0.86
246	8.54	34.27	1.52	141							
344	8.02	34.41	0.49	123							
457	6.88	34.45	0.30	104							
575	6.11	34.42	0.28	97							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

120.55

BLACK DOUGLAS; December 13, 1955; 1848 GCT; 27°23'N, 116°12'W; sounding, 2000+ fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 03°.

0	16.4	33.64	5.75	332	0	16.4	33.64	5.75	24.63	332	0.00
9	16.44	33.66	5.64	332	10	16.43	33.66	5.64	24.64	331	0.03
23	16.42	33.66	5.66	331	20	16.43	33.66	5.64	24.64	331	0.07
46	13.64	33.51	5.19	284	30	16.42	33.66	5.65	24.64	331	0.10
55	12.78	33.56	4.27	264	50	13.22	33.53	4.79	25.22	275	0.16
64	12.20	33.60	3.84	250	75	10.86	33.47	4.40	25.62	238	0.22
73	11.00	33.47	4.40	239	100	9.73	33.61	3.85	25.94	207	0.28
92	10.06	33.53	3.93	219	150	8.98	33.94	2.73	26.32	171	0.38
115	9.25	33.71	3.71	193	200	7.98	33.99	2.90	26.52	152	0.46
143	9.06	33.92	2.72	175	250	7.37	34.04	2.43	26.63	142	0.53
189	8.14	33.98	2.94	157	300	7.57	34.25	1.63	26.77	128	0.60
255	7.33	34.05	2.25	140	400	7.00	34.32	0.57	26.90	116	0.73
353	7.26	34.29	0.69	121	500	6.32	34.37	0.36	27.03	104	0.84
475	6.46	34.35	0.41	107	600	5.90	34.42	0.26	27.12	95	0.95
648	5.75	34.46	0.24	90	700	5.47	34.48	0.25	27.22	85	1.04
860	4.39	34.51	0.43	71	800	4.82	34.50	0.32	27.32	76	1.13
1154	3.60	34.56	0.71	59	1000	3.90	34.54	0.60	27.45	64	1.29

120.60

BLACK DOUGLAS; December 13, 1955; 1450 GCT; 27°13'N, 116°31.5'W; sounding, 2000+ fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 12°.

0	16.8	33.65	5.69	340	0	16.8	33.65	5.69	24.54	340	0.00
9	16.54	33.64	5.77	335	10	16.53	33.64	5.75	24.60	335	0.03
23	16.51	33.64	5.70	334	20	16.51	33.64	5.71	24.61	334	0.07
46	16.19	33.60	5.70	330	30	16.47	33.64	5.70	24.62	333	0.10
55	15.00	33.49	5.88	313	50	15.92	33.56	5.75	24.68	327	0.17
64	13.55	33.46	5.45	286	75	12.02	33.46	4.65	25.42	257	0.24
73	12.16	33.46	4.74	260	100	10.79	33.57	3.70	25.73	228	0.30
91	11.18	33.51	4.14	239	150	8.99	33.92	3.07	26.30	173	0.40
113	10.20	33.70	3.11	209	200	8.37	34.06	2.38	26.50	154	0.48
141	9.14	33.86	3.27	180	250	7.21	34.03	2.42	26.66	139	0.56
186	8.61	34.06	2.38	157	300	6.69	34.07	1.99	26.76	130	0.63
249	7.22	34.03	2.43	140	400	6.18	34.28	0.58	26.98	109	0.75
344	6.38	34.14	1.26	121	500	6.00	34.34	0.45	27.06	101	0.86
463	6.10	34.31	0.51	105	600	5.47	34.39	0.38	27.16	92	0.97
632	5.27	34.40	0.38	89	700	4.94	34.43	0.45	27.25	83	1.06
837	4.49	34.45	0.53	76	800	4.59	34.45	0.52	27.31	78	1.14
1122	3.62	34.52	0.78	62	1000	3.99	34.49	0.67	27.41	68	1.30

120.70

BLACK DOUGLAS; December 13, 1955; 0806 GCT; 26°52.5'N, 117°10'W; sounding, 2000+ fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	16.8	33.62	5.68	342	0	16.8	33.62	5.68	24.52	342	0.00
10	16.93	33.63	5.64	344	10	16.93	33.63	5.64	24.50	344	0.03
24	16.85	33.62	5.69	343	20	16.88	33.62	5.68	24.52	343	0.07
47	16.82	33.62	5.56	342	30	16.84	33.62	5.64	24.52	342	0.10
57	16.64	33.60	5.56	340	50	16.80	33.62	5.56	24.52	342	0.17
66	16.05	33.55	5.69	330	75	14.52	33.41	5.85	24.86	310	0.25
76	14.40	33.40	5.85	307	100	12.50	33.41	5.37	25.28	270	0.33
94	13.02	33.40	5.51	280	150	10.05	33.72	3.21	25.96	205	0.45
117	11.17	33.44	4.90	244	200	9.42	33.98	2.68	26.28	175	0.54
145	10.13	33.70	3.28	208	250	8.81	34.19	1.87	26.54	150	0.63
191	9.54	33.93	2.78	181	300	8.26	34.27	1.27	26.69	136	0.70
256	8.75	34.21	1.81	148	400	7.29	34.31	0.60	26.86	120	0.83
354	7.76	34.30	0.84	127	500	6.21	34.33	0.39	27.02	105	0.95
475	6.46	34.32	0.41	109	600	5.55	34.36	0.35	27.13	94	1.06
647	5.28	34.38	0.35	90	700	5.03	34.40	0.36	27.22	86	1.15
858	4.44	34.45	0.45	76	800	4.70	34.43	0.41	27.29	80	1.24
1148	3.58	34.50	0.78	63	1000	3.90	34.48	0.64	27.40	68	1.41

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

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BLACK DOUGLAS; December 12, 1955; 0917 GCT; 27°24'N, 114°39.5'W; sounding, 38 fm; wind, 360°, force 1; weather, clear; sea, slight; wire angle, 00°.

123.37

0	15.44	33.60	5.90	314	0	15.44	33.60	5.90	24.82	314	0.00
10	15.45	33.59	5.90	315	10	15.45	33.59	5.90	24.80	315	0.03
15	15.31	33.58	6.06	312	20	15.04	33.58	6.29	24.89	308	0.06
20	15.04	33.58	6.29	308	30	14.27	33.50	6.00	25.00	297	0.09
25	14.74	33.55	6.11	303	50	(12.38)	(33.64)	(4.83)	(25.48)	(251)	(0.15)
30	14.27	33.50	6.00	297							
34	13.40	33.48	5.46	282							
39	12.99	33.46	5.41	275							
48	12.44	33.62	4.89	254							

BLACK DOUGLAS; December 12, 1955; 1145 GCT; 27°18'N, 114°51.5'W; sounding, 150+ fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 00°.

123.40

0	14.92	33.57	5.90	305	0	14.92	33.57	5.90	24.91	305	0.00
10	14.39	33.54	6.29	297	10	14.39	33.54	6.29	25.00	297	0.03
15	14.20	33.64	6.54	286	20	13.91	33.53	6.37	25.09	288	0.06
20	13.91	33.53	6.37	288	30	11.97	33.47	4.84	25.44	254	0.09
24	12.72	33.48	5.35	269	50	11.72	33.51	4.36	25.51	248	0.14
29	12.01	33.47	4.86	257	75	10.24	33.66	3.67	25.90	211	0.19
34	11.78	33.47	4.74	252	100	11.80	34.41	1.04	26.18	184	0.24
43	11.72	33.48	4.61	251	150	11.31	34.48	0.76	26.33	170	0.34
52	11.75	33.55	4.28	246	200	10.67	34.51	0.78	26.47	157	0.42
66	10.70	33.55	4.10	228	250	(9.70)	(34.41)	(0.74)	(26.56)	(148)	(0.50)
79	10.10	33.69	3.49	208							
97	11.74	34.39	1.11	184							
124	11.82	34.43	0.90	183							
156	11.21	34.49	0.75	167							
193	10.78	34.51	0.79	158							
240	9.90	34.43	0.75	150							

BLACK DOUGLAS; December 12, 1955; 1730 GCT; 26°58'N, 115°32'W; sounding, 1200+ fm; wind, 290°, force 1; weather, clear; sea, moderate; wire angle, 08°.

123.50

0	17.1	33.64	5.69	347	0	17.1	33.64	5.69	24.47	347	0.00
9	16.98	33.63	6.34u	345	10	16.98	33.63	5.56	24.50	345	0.04
28	16.98	33.66	5.56	343	20	16.98	33.64	5.56	24.50	344	0.07
37	16.96	33.65	5.68	343	30	16.98	33.66	5.58	24.52	343	0.10
46	16.05	33.53	6.01	332	50	15.33	33.47	6.00	24.74	322	0.17
56	14.49	33.43	5.94	307	75	12.83	33.46	5.43	25.26	272	0.24
65	13.69	33.43	5.84	291	100	11.10	33.50	4.55	25.60	239	0.31
74	12.96	33.47	5.47	274	150	9.37	34.00	3.00	26.30	173	0.41
82	12.05	33.40	5.37	262	200	9.40	34.35	1.35	26.57	148	0.49
91	11.62	33.45	4.95	251	250	9.11	34.39	0.86	26.65	140	0.57
114	10.16	33.59	4.03	216	300	8.48	34.42	0.64	26.77	128	0.64
141	9.37	33.90	3.23	181	400	7.48	34.45	0.39	26.94	112	0.76
186	9.42	34.27	1.57	154	500	6.64	34.45	0.33	27.05	102	0.87
241	9.22	34.38	0.97	143							
338	8.04	34.43	0.51	122							
451	7.09	34.46	0.33	106							
570	5.98	34.42	0.34	95							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T}{cm^3/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T}{cm^3/g}$	dyn. m

123.55

BLACK DOUGLAS; December 12, 1955; 2128 GCT; 26°48'N, 115°49.5'W; sounding, 2000 fm; wind, 330°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	17.8	33.69	5.48	360	0	17.8	33.69	5.48	24.34	360	0.00
10	17.28	33.68	5.62	348	10	17.28	33.68	5.62	24.46	348	0.04
29	17.06	33.65	5.47	346	20	17.12	33.66	5.49	24.47	347	0.07
38	17.01	33.65	5.47	345	30	17.06	33.65	5.47	24.48	346	0.10
47	16.88	33.64	5.56	342	50	16.73	33.63	5.61	24.54	341	0.17
56	15.38	33.48	5.80	322	75	12.74	33.42	5.27	25.24	274	0.25
66	13.67	33.46	5.51	288	100	10.88	33.55	4.02	25.70	230	0.31
75	12.74	33.42	5.27	274	150	9.88	33.98	2.63	26.21	182	0.42
84	12.07	33.46	4.74	259	200	8.98	34.19	2.10	26.51	153	0.50
93	11.10	33.48	4.23	240	250	8.63	34.28	1.45	26.64	141	0.58
117	10.52	33.68	3.58	215	300	8.36	34.33	0.88	26.71	134	0.65
144	9.99	33.94	2.69	187	400	7.70	34.44	0.31	26.90	116	0.78
191	9.07	34.16	2.22	157	500	6.92	34.47	0.26	27.03	104	0.90
247	8.63	34.27	1.50	142							
345	8.07	34.38	0.49	126							
457	7.32	34.47	0.26	109							
575	6.11	34.43	0.28	96							

127.34

BLACK DOUGLAS; December 12, 1955; 0317 GCT; 26°55.5'N, 114°06'W; sounding, 40 fm; wind, calm; weather, clear; sea, calm; wire angle, 00°.

0	15.46	33.69	6.02	308	0	15.46	33.69	6.02	24.88	308	0.00
10	15.54	33.77	5.55	304	10	15.54	33.77	5.55	24.93	304	0.03
15	15.53	33.82	5.17	300	20	15.48	33.86	4.91	25.02	295	0.06
19	15.49	33.86	4.92	296	30	15.28	33.86	4.75	25.05	292	0.09
24	15.41	33.86	4.74	294	50	(14.20)	(33.93)	(2.73)	(25.34)	(265)	(0.15)
29	15.32	33.86	4.75	292							
33	15.18	33.84	4.62	291							
38	14.94	33.80	4.44	289							
48	14.25	33.92	2.85	266							

127.40

BLACK DOUGLAS; December 11-12, 1955; 2325, 0003 GCT; 26°44'N, 114°28'W; sounding, 1600 fm; wind, 290°, force 1; weather, clear; sea, moderate; wire angle, 01°, missing.

0	17.5	33.69	5.64	353	0	17.5	33.69	5.64	24.41	353	0.00
9	17.08	33.70	5.70	342	10	17.07	33.70	5.70	24.53	342	0.04
28	16.97	33.69	5.64	340	20	17.00	33.69	5.67	24.54	341	0.07
37	16.27	33.64	5.19	329	30	16.94	33.68	5.63	24.55	340	0.10
46	14.74	33.65	4.78	295	50	14.37	33.64	4.69	25.08	289	0.17
56	13.96	33.64	4.55	281	75	12.81	33.76	3.17	25.50	249	0.23
65	13.55	33.80	3.52	261	100	10.10	33.66	3.55	25.91	210	0.29
74	12.94	33.78	3.12	251	150	9.42	34.07	2.46	26.34	169	0.39
83	10.87	33.51	4.14	234	200	10.00	34.42	0.89	26.52	152	0.47
92	10.38	33.58	3.79	220	250	9.35	34.38	0.82	26.60	145	0.54
116	9.70	33.83	3.27	191	300	8.56	34.35	0.72	26.70	135	0.62
144	9.41	34.05	2.60	170	400	7.32	34.36	0.44	26.90	117	0.74
190	10.05	34.42	0.94	153	500	6.67	34.39	0.32	27.01	106	0.86
246	9.41	34.38	0.82	146							
345	7.91	34.34	0.61	126							
458	6.93	34.38	0.33	110							
460	6.93	34.38	0.35	110							
579	6.07	34.40	0.28	98							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{1}{10} \frac{cm}{g}$	m	°C	‰	ml/L	g/L	$\frac{1}{10} \frac{cm}{g}$	dyn. m

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BLACK DOUGLAS; December 11, 1955; 1610 GCT; 26°23.5'N, 115°08'W; sounding, 1200+ fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 12°.

127.50

0	16.8	33.67	5.81	338	0	16.8	33.67	5.81	24.56	338	0.00
9	16.82	33.62	5.64	342	10	16.82	33.61	5.63	24.51	343	0.03
28	16.82	33.61	5.56	343	20	16.82	33.61	5.61	24.51	343	0.07
36	16.81	33.62	5.59	342	30	16.82	33.61	5.57	24.51	343	0.10
46	14.46	33.36	5.93	312	50	14.07	33.39	5.89	24.96	301	0.17
55	13.75	33.40	5.81	294	75	12.40	33.38	5.38	25.28	270	0.24
64	12.93	33.40	5.57	278	100	10.59	33.46	4.54	25.68	232	0.30
72	12.60	33.39	5.44	273	150	9.68	34.08	2.50	26.31	172	0.40
81	11.71	33.37	5.18	258	200	9.34	34.27	1.81	26.51	153	0.49
90	11.23	33.39	4.99	249	250	8.81	34.29	0.96	26.61	144	0.56
113	9.99	33.58	3.89	214	300	8.60	34.39	0.54	26.73	132	0.63
140	9.74	33.87	2.64	189	400	7.96	34.43	0.30	26.86	120	0.76
185	9.49	34.25	2.04	157	500	6.95	34.41	0.28	26.99	108	0.88
239	8.88	34.28	1.14	145							
335	8.43	34.42	0.40	128							
446	7.47	34.42	0.28	115							
563	6.35	34.40	0.30	101							

BLACK DOUGLAS; December 11, 1955; 1155 GCT; 26°13.5'N, 115°27'W; sounding, 2000+ fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 12°.

127.55

0	17.8	33.70	5.51	359	0	17.8	33.70	5.51	24.35	359	0.00
10	17.86	33.75	5.63	357	10	17.86	33.75	5.63	24.37	357	0.03
28	17.87	33.71	5.51	359	20	17.87	33.74	5.56	24.37	357	0.07
42	17.86	33.73	5.53	358	30	17.87	33.71	5.51	24.34	359	0.11
52	16.42	33.58	5.93a)	337	50	16.80	33.61	5.86	24.51	343	0.18
61	15.73	33.61	5.99	319	75	14.19	33.50	5.81	25.02	295	0.26
71	14.40	33.48	5.88	301	100	11.93	33.46	5.06	25.43	256	0.33
80	13.86	33.51	5.73	288	150	9.67	33.77	3.25	26.06	196	0.44
94	12.55	33.45	5.30	268	200	9.63	34.19	1.90	26.41	163	0.53
103	11.62	33.47	4.94	250	250	9.21	34.32	1.34	26.57	148	0.61
126	10.55	33.55	4.25	225	300	8.80	34.39	0.92	26.70	136	0.69
153	9.65	33.82	3.19	191	400	7.71	34.42	0.43	26.88	118	0.82
204	9.58	34.21	1.88	161	500	6.68	34.40	0.36	27.01	106	0.93
263	9.13	34.35	1.22	144	600	6.02	34.43	0.32	27.13	95	1.04
369	8.05	34.42	0.49	123							
491	6.76	34.40	0.37	106							
616	5.94	34.45	0.31	92							

BLACK DOUGLAS; December 10, 1955; 1341 GCT; 26°29'N, 113°29'W; sounding, 43 fm; wind, 040°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

130.30

0	17.30	34.02	5.68	324	0	17.30	34.02	5.68	24.71	324	0.00
10	17.33	34.03	5.47	324	10	17.33	34.03	5.47	24.71	324	0.03
15	17.33	34.02	5.29	325	20	17.29	34.02	5.38	24.71	324	0.06
19	17.28	34.02	5.40	324	30	17.02	34.00	5.31	24.77	319	0.10
24	17.31	34.02	5.30	324	50	(15.43)	(33.98)	(3.24)	(25.11)	(286)	(0.16)
29	17.02	34.00	5.34	319							
34	17.00	33.99	5.19	319							
38	16.85	33.99	5.37	316							
48	15.64	33.98	3.62	290							

a) Alternate value, 5.12 ml/L, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

130.35

BLACK DOUGLAS; December 10, 1955; 1705 GCT; 26°19'N, 113°48.5'W; sounding, missing; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	16.8	33.84	5.52	326	0	16.8	33.84	5.52	24.69	326	0.00
9	16.78	33.82	5.49	327	10	16.78	33.82	5.48	24.68	327	0.03
14	16.81	33.86	5.45	325	20	16.78	33.88	5.48	24.73	322	0.06
18	16.82	33.88	5.49	323	30	16.08	33.87	5.16	24.89	308	0.10
23	16.50	33.89	5.27	316	50	12.80	33.67	4.01	25.43	256	0.15
28	16.20	33.88	5.17	310	75	11.63	34.02	2.25	25.92	209	0.21
33	15.46	33.80	5.11	300	100	11.30	34.23	1.60	26.14	188	0.26
42	13.69	33.66	4.52	274	150	11.61	34.52	0.77	26.31	172	0.35
51	12.67	33.68	3.91	253	200	10.88	34.55	0.67	26.47	157	0.44
61	12.11	33.86	2.93	230	250	10.10	34.49	0.60	26.56	148	0.51
75	11.63	34.02	2.25	209							
94	11.28	34.20	1.69	190							
117	12.04	34.51	0.80	180							
155	11.52	34.52	0.77	170							
193	10.99	34.56	0.70	158							
231	10.49	34.52	0.60	153							
289	9.16	34.44	0.66	138							

130.40

BLACK DOUGLAS; December 10, 1955; 2054 GCT; 26°09'N, 114°07.5'W; sounding, 700 fm; wind, 290°, force 3; weather, overcast; sea, rough; wire angle, 05°.

0	17.3	33.93	5.60	331	0	17.3	33.93	5.60	24.64	331	0.00
10	17.26	33.93	5.73	330	10	17.26	33.93	5.73	24.65	330	0.03
28	15.86	33.81	5.00	308	20	17.22	33.92	5.73	24.66	329	0.07
38	13.94	33.71	4.24	275	30	15.34	33.77	4.81	24.98	298	0.10
47	13.44	33.87	3.06	254	50	13.29	33.91	2.69	25.50	248	0.15
57	12.93	33.94	2.43	239	75	11.92	34.00	2.31	25.85	216	0.21
66	12.04	33.91	2.56	225	100	11.41	34.21	1.73	26.10	192	0.26
76	11.90	34.02	2.30	214	150	11.28	34.52	0.87	26.37	166	0.35
85	11.76	34.05	2.22	209	200	10.81	34.58	0.54	26.51	153	0.43
94	11.55	34.14	1.91	199	250	10.23	34.56	0.50	26.59	146	0.51
118	11.21	34.33	1.30	179	300	9.45	34.52	0.43	26.70	135	0.58
145	11.30	34.50	0.92	168	400	8.04	34.47	0.28	26.88	118	0.71
192	10.87	34.58	0.54	155	500	7.10	34.45	0.24	26.99	107	0.83
248	10.26	34.56	0.50	146							
346	8.70	34.49	0.34	127							
460	7.47	34.46	0.24	111							
579	6.26	34.42	0.24	99							

130.50

BLACK DOUGLAS; December 11, 1955; 0420 GCT; 25°49'N, 114°46'W; sounding, 1600+ fm; wind, 320°, force 3; weather, missing; sea, moderate; wire angle, 26°.

0	16.7	33.69	5.63	334	0	16.7	33.69	5.63	24.60	334	0.00
8	16.78	33.69	5.55	336	10	16.79	33.69	5.54	24.58	337	0.03
20	16.81	33.68	5.43	338	20	16.81	33.68	5.43	24.57	338	0.07
45	14.72	33.45	5.83	310	30	16.81	33.68	5.43	24.57	338	0.10
53	13.60	33.41	5.66	290	50	14.00	33.42	5.77	24.99	298	0.16
61	12.79	33.43	5.29	274	75	12.02	33.47	4.90	25.42	256	0.23
73	12.04	33.43	4.96	260	100	11.13	33.78	2.99	25.84	217	0.29
89	12.26	33.87	2.60	232	150	9.52	34.03	2.88	26.30	174	0.39
109	10.38	33.73	3.18	209	200	9.43	(34.23)	1.52	(26.48)	(156)	(0.48)
132	9.72	33.91	3.07	186	250	9.54	(34.42)	0.52	(26.60)	(144)	(0.55)
177	9.33	34.17	2.27	160	300	8.82	(34.45)	0.51	(26.74)	(131)	(0.62)
241	9.63	34.17r	0.56	-	400	7.60	34.44	0.40	26.92	114	(0.75)
330	8.40	34.45	0.51	125	500	6.70	34.44	0.27	27.04	103	(0.86)
447	7.15	34.43	0.32	109	600	6.11	34.45	0.23	27.12	96	(0.97)
606	6.10	34.45	0.23	94	700	5.59	34.46	0.27	27.21	87	(1.07)
807	4.95	34.48	0.35	79	800	4.98	34.48	0.34	27.28	80	(1.16)
1085	3.91	34.54	0.62	64	1000	4.14	34.53	0.57	27.42	67	(1.32)

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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BLACK DOUGLAS; December 9, 1955; 1928 GCT; 26°04.5'N, 112°48'W; sounding, 42 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

133.25

0	17.48	33.99	5.45	330	0	17.48	33.99	5.45	24.65	330	0.00
10	17.20	34.01	5.47	322	10	17.20	34.01	5.47	24.73	322	0.03
15	17.03	34.01	4.91u	318	20	16.91	34.02	5.13	24.81	315	0.06
19	16.92	34.02	5.14	315	30	16.40	33.98	4.62	24.89	307	0.10
24	16.80	34.00	5.02	314	50	(14.12)	(34.00)	(2.67)	(25.41)	(258)	(0.15)
29	16.53	33.99	4.72	309							
33	15.96	33.95	4.20	299							
38	15.70	34.03	3.53	288							
48	14.32	34.00	2.74	262							

BLACK DOUGLAS; December 9, 1955; 2317 GCT; 25°54.5'N, 113°07.5'W; sounding, 95 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 04°.

133.30

0	18.26	33.93	5.60	353	0	18.26	33.93	5.60	24.41	353	0.00
10	17.76	33.92	5.62	342	10	17.76	33.92	5.62	24.52	342	0.04
15	17.63	33.91	5.67	340	20	17.44	33.90	5.67	24.59	336	0.07
19	17.44	33.89	5.67	337	30	17.25	33.86	5.80	24.61	334	0.10
24	17.44	33.96	5.75	332	50	14.96	33.69	5.38	24.99	297	0.16
28	17.32	33.87	5.81	335	75	12.00	33.79	3.10	25.67	233	0.23
33	17.11	33.86	5.73	331	100	11.27	34.04	2.30	26.00	201	0.29
43	16.23	33.80	5.67	316	150	(12.19)	(34.67)	(0.45)	(26.31)	(172)	(0.38)
52	13.90	33.60	5.01	282							
61	12.88	33.68	4.00	257							
74	12.06	33.78	3.14	235							
92	11.24	33.95	2.57	208							
109	11.44	34.20	1.87	193							
141	12.16	34.64	0.47	173							

BLACK DOUGLAS; December 10, 1955; 0537 GCT; 25°34.5'N, 113°45.5'W; sounding, 1000+ fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 07°.

133.40

0	18.4	33.94	5.52	355	0	18.4	33.94	5.52	24.38	355	0.00
10	18.36	33.93	5.44	355	10	18.36	33.93	5.44	24.39	355	0.04
29	17.81	33.91	5.51	344	20	18.34	33.93	5.44	24.39	354	0.07
38	15.48	33.62	5.80	313	30	17.65	33.90	5.56	24.53	341	0.11
48	14.24	33.67	4.83	284	50	13.94	33.66	4.71	25.19	279	0.17
57	12.20	33.57	4.24	253	75	11.50	33.87	2.70	25.82	218	0.23
67	11.54	33.77	3.24	226	100	11.09	34.10	2.08	26.07	195	0.28
76	11.49	33.89	2.68	216	150	10.96	34.42	1.06	26.35	168	0.37
86	11.21	33.95	2.53	207	200	10.16	34.44	0.84	26.51	153	0.45
95	11.08	34.05	2.15	198	250	9.52	34.48	0.55	26.65	140	0.53
117	11.41	34.38	1.23	179	300	8.96	34.48	0.37	26.74	131	0.60
145	11.04	34.41	1.09	170	400	7.81	34.44	0.29	26.89	117	0.73
191	10.30	34.43	0.91	156	500	6.79	34.42	0.27	27.01	106	0.84
246	9.59	34.48	0.58	141							
343	8.46	34.47	0.30	125							
455	7.19	34.42	0.28	111							
573	6.35	34.42	0.24	100							

BLACK DOUGLAS; December 9, 1955; 1323 GCT; 25°29.5'N, 112°17.5'W; sounding, 35 fm; wind, 290°, force 1; weather, clear; sea, slight; wire angle, 00°.

137.23

0	18.44	34.13	4.95	343	0	18.44	34.13	4.95	24.51	343	0.00
10	18.46	34.13	5.06	343	10	18.46	34.13	5.06	24.52	343	0.03
15	18.46	34.13	4.99	343	20	18.42	34.12	5.05	24.51	343	0.07
19	18.43	34.12	5.06	343	30	18.20	34.10	5.05	24.55	339	0.10
24	18.28	34.11	4.90	340	50	(14.39)	(33.94)	(3.30)	(25.31)	(267)	(0.16)
29	18.21	34.10	5.05	339							
33	16.10	33.86	4.52	309							
38	14.76	33.72	4.33	291							
48	14.39	33.93	3.35	268							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T_3}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T_3}{cm/g}$	dyn. m

137.30

BLACK DOUGLAS; December 9, 1955; 1009 GCT; 25°19'N, 112°38.5'W; sounding, 60 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	18.11	34.07	5.40	339	0	18.11	34.07	5.40	24.56	339	0.00
10	18.10	34.06	5.19	339	10	18.10	34.06	5.19	24.55	340	0.03
14	18.03	34.07	5.19	337	20	17.93	34.07	5.17	24.60	335	0.07
19	17.93	34.07	5.18	336	30	17.90	34.07	5.15	24.61	334	0.10
24	17.91	34.07	5.17	334	50	14.32	33.66	4.63	25.11	286	0.16
28	17.90	34.07	5.35u	334	75	12.68	34.03	2.33	25.72	228	0.23
33	17.89	34.07	5.12	334							
43	16.70	33.94	4.58	316							
52	13.46	33.60	4.67	274							
62	12.51	33.68	3.73	250							
76	12.70	34.04	2.30	227							

137.40

BLACK DOUGLAS; December 9, 1955; 0329 GCT; 24°59'N, 113°23'W; sounding, 1200 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°.

0	19.0	33.94	5.40	370	0	19.0	33.94	5.40	24.23	370	0.00
9	19.00	33.94	5.36	370	10	18.99	33.94	5.36	24.23	370	0.04
27	17.30	33.80	5.75	340	20	17.60	33.84	5.72	24.51	344	0.07
36	17.11	33.71	5.68	342	30	17.23	33.78	5.71	24.54	340	0.11
45	16.76	33.71	5.68	334	50	15.25	33.66	5.81	24.91	306	0.17
54	14.41	33.62	5.81	292	75	12.34	33.55	4.48	25.42	257	0.24
63	13.49	33.57	5.21	277	100	11.23	33.81	3.00	25.83	218	0.20
72	12.49	33.54	4.64	260	150	10.52	34.28	1.80	26.32	171	0.40
81	11.99	33.62	4.07	245	200	10.08	34.38	1.23	26.47	157	0.48
90	11.28	33.63	3.80	232	250	9.85	34.52	0.63	26.62	143	0.56
113	11.18	34.04	2.21	200	300	9.44	34.56	0.37	26.72	134	0.63
140	10.68	34.24	1.90	177	400	8.43	34.51	0.20	26.84	121	0.76
185	10.16	34.36	1.39	159	500	7.27	34.46	0.23	26.97	109	0.88
239	9.93	34.50	0.71	145							
335	9.11	34.56	0.28	128							
445	7.94	34.47	0.19	117							
561	6.54	34.45	0.30	100							

140.30

BLACK DOUGLAS; December 8, 1955; 1101 GCT; 24°45'N, 112°24'W; sounding, 60 fm; wind, 290°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	20.07	34.39	5.17	364	0	20.07	34.39	5.17	24.30	364	0.00
10	20.08	34.38	5.16	364	10	20.08	34.38	5.16	24.29	364	0.04
15	20.09	34.39	5.30	364	20	20.04	34.38	5.23	24.30	364	0.07
20	20.04	34.38	5.23	364	30	20.02	34.38	5.32	24.30	364	0.11
24	20.07	34.39	5.25	364	50	16.93	33.96	4.86	24.76	320	0.18
29	20.04	34.38	5.27	364	75	(15.08)	(34.18)	(2.28)	(25.35)	(263)	(0.25)
33	19.98	34.37	5.52	363							
42	18.86	34.17	4.95	350							
51	16.59	33.93	4.83	314							
60	14.97	33.82	4.29	288							
74	15.01	34.14	2.52	266							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

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BLACK DOUGLAS; December 8, 1955; 1425 GCT; 24°36'N, 112°43'W; sounding, 550 fm; wind, 290°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

140.35

0	20.2	34.31	5.14	372	0	20.2	34.31	5.14	24.21	372	0.00
9	20.16	34.33	5.02	370	10	20.16	34.33	5.05	24.23	370	0.04
28	20.17	34.32	5.26	371	20	20.17	34.32	5.13	24.22	371	0.07
38	19.98	34.31	4.91	367	30	20.16	34.32	5.26	24.22	371	0.11
48	18.04	34.07	4.96	337	50	17.40	34.03	4.80	24.69	326	0.18
57	15.08	33.95	3.48	281	75	13.65	33.97	2.75	25.48	251	0.25
67	14.54	34.04	2.80	263	100	11.73	34.00	2.41	25.88	212	0.31
76	13.46	33.95	2.74	248	150	11.65	34.52	0.80	26.30	173	0.41
86	12.27	33.84	2.68	234	200	11.50	34.65	0.32	26.43	161	0.49
95	11.83	33.91	2.57	221	250	10.32	34.55	0.73	26.57	148	0.57
118	11.53	34.25	1.52	191	300	9.60	34.52	0.62	26.67	138	0.65
146	11.65	34.51	0.86	174	400	8.33	34.48	0.47	26.84	122	0.78
193	11.60	34.65	0.30	162	500	7.03	34.45	0.45	27.00	106	0.90
249	10.34	34.55	0.73	148							
347	9.02	34.51	0.53	130							
459	7.50	34.45	0.42	112							
578	6.31	34.45	0.53	97							

BLACK DOUGLAS; December 8, 1955; 1815 GCT; 24°25.5'N, 113°02'W; sounding, 1840 fm; wind, 290°, force 1; weather, partly cloudy; sea, moderate; wire angle, 18°.

140.40

0	18.3	33.99	5.45	350	0	18.3	33.99	5.45	24.44	350	0.00
9	18.34	33.99	5.56	350	10	18.33	33.99	5.55	24.44	350	0.04
27	18.24	33.98	5.51	349	20	18.32	33.99	5.55	24.44	350	0.07
36	17.88	33.92	5.55	345	30	18.18	33.97	5.52	24.46	348	0.10
45	15.82	33.68	5.64	316	50	14.80	33.61	5.51	24.96	300	0.17
53	14.26	33.59	5.38	291	75	12.73	33.73	4.01	25.48	251	0.24
62	13.19	33.61	4.81	268	100	12.53	34.19	2.08	25.88	212	0.30
71	12.88	33.68	4.23	257	150	12.31	34.67	0.56	26.29	174	0.40
80	12.49	33.82	3.67	240	200	11.44	34.67	0.45	26.45	159	0.48
89	12.30	33.99	2.75	224	250	10.33	34.58	0.43	26.59	145	0.56
111	12.91	34.54	1.13	194	300	9.67	34.54	0.39	26.67	138	0.63
138	12.48	34.65	0.65	178	400	8.50	34.52	0.23	26.84	121	0.76
182	11.84	34.69	0.45	164	500	7.30	34.48	0.21	26.99	108	0.88
236	10.58	34.60	0.45	148							
330	9.31	34.53	0.36	133							
438	8.07	34.52	0.19	115							
553	6.54	34.42	0.25	102							

BLACK DOUGLAS; December 8, 1955; 0430 GCT; 24°19'N, 111°48'W; sounding, 40 fm; wind, 310°, force 2; weather, clear; sea, slight; wire angle, 08°.

143.26

0	19.90	34.36	5.40	361	0	19.90	34.36	5.40	24.32	361	0.00
10	19.84	34.34	5.46	361	10	19.84	34.34	5.46	24.32	361	0.04
15	19.70	34.34	5.27	358	20	19.45	34.31	5.45	24.40	354	0.07
19	19.46	34.31	5.45	354	30	19.10	34.27	5.12	24.46	348	0.11
24	19.38	34.33	5.29	350							
29	19.24	34.29	5.17	350							
33	18.39	34.22	5.01	335							
38	17.62	34.13	4.70	324							
47	16.48	34.16	3.74	296							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

143.30

BLACK DOUGLAS; December 8, 1955; 0125 GCT; 24°11'N, 112°03'W; sounding, 109 fm; wind, 300°, force 2; weather, partly cloudy; sea, slight; wire angle, 11°.

0	21.16	34.51	5.17	383	0	21.16	34.51	5.17	24.10	383	0.00
10	21.17	34.49	5.09	384	10	21.17	34.49	5.09	24.08	384	0.04
15	21.14	34.47	5.10	385	20	21.08	34.50	5.10	24.11	382	0.08
20	21.08	34.50	5.10	382	30	21.06	34.50	5.20	24.13	380	0.12
24	21.10	34.49	5.23	383	50	13.64	33.60	4.85	25.20	278	0.18
29	21.07	34.51	5.17	380	75	13.07	34.07	2.40	25.68	232	0.24
34	20.99	34.49	5.27	380	100	12.33	34.16	1.88	25.89	212	0.30
43	15.80	33.77	5.18	309	150	(12.00)	(34.48)	(1.02)	(26.21)	(182)	(0.40)
53	13.47	33.60	4.73	274							
62	13.26	33.94	3.18	245							
76	13.05	34.07	2.34	232							
95	12.40	34.13	2.13	215							
114	12.25	34.23	1.59	205							
147	12.02	34.45	1.08	184							

143.35

BLACK DOUGLAS; December 7, 1955; 2135 GCT; 24°01'N, 112°22'W; sounding, 520 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	21.0	34.27	4.89	396	0	21.0	34.27	4.89	23.96	396	0.00
10	20.94	34.28	5.08	393	10	20.94	34.28	5.08	23.99	393	0.04
28	20.93	34.29	5.05	392	20	20.94	34.28	5.07	23.99	393	0.08
37	20.94	34.33	5.04	390	30	20.94	34.30	5.05	24.00	392	0.12
46	20.84a)	34.27	4.84	392	50	19.08	33.99	5.04	24.25	368	0.19
55	16.32	33.62	5.45	331	75	13.55	33.86	3.28	25.43	256	0.27
64	14.72	33.84	4.13	281	100	12.44	34.20	2.08	25.90	211	0.33
73	13.56	33.82	3.40	260	150	11.38	34.51	1.36	26.34	169	0.43
82	13.51	34.02	2.88	244	200	11.04	34.61	0.70	26.48	156	0.51
92	12.78	34.13	2.46	222	250	10.53	34.62	0.40	26.59	146	0.59
115	12.02	34.34	1.34	193	300	9.92	34.59	0.39	26.67	138	0.66
142	11.46	34.48	1.41	173	400	8.56	34.54	0.42	26.85	120	0.80
189	11.14	34.60	0.80	158	500	7.22	34.49	0.43	27.01	106	0.91
244	10.60	34.62	0.41	147							
342	9.38	34.56	0.39	132							
454	7.78	34.52	0.46	111							
576	6.56	34.45	0.39	100							

147.20

BLACK DOUGLAS; December 7, 1955; 0605 GCT; 23°56'N, 111°03.5'W; sounding, 71 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	21.2	34.58	5.30	378	0	21.2	34.58	5.30	24.14	378	0.00
10	21.29	34.56	5.18	383	10	21.29	34.56	5.18	24.10	383	0.04
20	21.30	34.56	5.15	383	20	21.30	34.56	5.15	24.10	383	0.08
29	20.76	34.43	5.28	378	30	20.42	34.37	5.33	24.19	374	0.11
48	14.88	33.51	5.91	309	50	14.86	33.52	5.90	24.88	308	0.18
71	14.70	33.96	3.47	272	75	14.58	33.98	3.22	25.29	269	0.25
95	14.06	34.46	1.19	223	100	(13.95)	(34.58)	(0.85)	(25.89)	(212)	(0.32)

a) Mean value of 20.78 and 20.89°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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BLACK DOUGLAS; December 7, 1955; 0955 GCT; 23°46.5'N, 111°22.5'W; sounding, 110 fm; wind, 290°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°.

147.25

0	21.12	34.33	5.27	394	0	21.12	34.33	5.27	23.97	394	0.00
10	21.15	34.36	5.27	393	10	21.15	34.36	5.27	23.99	393	0.04
15	21.14	34.34	5.36	394	20	21.11	34.36	5.20	24.00	392	0.08
20	21.11	34.36	5.20	392	30	21.11	34.34	5.56	23.99	393	0.12
25	21.12	34.34	5.64	393	50	20.45	34.24	5.40	24.08	384	0.20
30	21.11	34.34	5.56	393	75	14.05	33.61	5.36	25.13	284	0.28
34	21.12	34.36	5.18	392	100	13.47	34.33	1.90	25.80	221	0.34
44	21.15	34.38	5.35	392	150	11.71	34.50	0.97	26.28	175	0.44
53	19.30	34.04	5.51	370	200	(11.03)	(34.61)	(0.53)	(26.48)	(156)	(0.53)
62	14.80	33.55	6.12	304							
71	14.18	33.55	5.63	291							
90	13.70	34.08	2.67	243							
103	13.40	34.34	1.79	219							
129	12.24	34.46	1.05	188							
162	11.43	34.51	0.94	170							
197	11.06	34.60	0.57	157							

BLACK DOUGLAS; December 7, 1955; 1353 GCT; 23°36'N, 111°41.5'W; sounding, 280 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 10°.

147.30

0	21.5	34.40	5.03	399	0	21.5	34.40	5.03	23.92	399	0.00
9	21.48	34.40	5.01	399	10	21.48	34.40	5.01	23.92	399	0.04
28	21.50	34.40	5.02	399	20	21.50	34.40	5.02	23.92	399	0.08
38	21.50	34.40	4.99	399	30	21.50	34.40	5.00	23.92	399	0.12
47	21.49	34.40	5.06	399	50	21.43	34.39	5.06	23.93	398	0.20
56	20.44	34.26	5.06	382	75	13.27	33.73	3.91	25.38	261	0.28
65	15.71	33.86	4.57	300	100	11.20	33.96	3.70	25.95	206	0.34
75	13.27	33.73	3.91	261	150	11.68	34.50	0.79	26.28	175	0.44
84	12.02	33.58	4.25	249	200	11.25	34.64	0.38	26.47	157	0.52
93	11.20	33.95	4.13	207	250	10.63	34.65	0.30	26.59	146	0.60
111	11.30	33.54r	2.64	-	300	9.95	34.63	0.24	26.70	135	0.68
134	11.94	34.34	1.34	191	400	8.64	34.57	0.19	26.86	120	0.81
152	11.65	34.52	0.76	173	500	(7.80)	(34.52)		(26.95)	(111)	(0.93)
189	11.36	34.63	0.40	160							
263	10.46	34.65	0.28	143							
360	9.10	34.59	0.20	125							
475	7.98	34.53	0.19	113							

BLACK DOUGLAS; December 6, 1955; 2243, 2304 GCT; 23°23.5'N, 110°39'W; sounding, 110 fm; wind, 290°, force 2; weather, clear; sea, moderate; wire angle, 15°, 17°.

150.19

0	22.1	34.65	5.08	397	0	22.1	34.65	5.08	23.95	397	0.00
9	22.04	34.67	4.93	394	10	22.01	34.68	4.95	23.99	393	0.04
13	21.99	34.70	4.98	390	20	21.91	34.69	5.00	24.04	389	0.08
18	21.94	34.69	5.01	390	30	19.53	34.20	5.19	24.31	363	0.12
23	21.82	34.70	4.68	386	50	15.15	33.89	4.06	25.10	287	0.18
27	21.46	34.69	4.79	377	75	13.87	34.28	1.96	25.68	232	0.25
32	17.60	33.78	5.32	348	100	13.16	34.67	1.32	26.13	190	0.30
41	16.24	33.84	4.56	314							
50	15.15	33.89	4.06	287							
59	14.48	34.14	2.71	255							
73	13.90	34.27	2.03	234							
90	13.49	34.57	1.15	204							
109	12.86	34.69	1.41	182							
139	12.28	34.69	0.68	172							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m

150.25

BLACK DOUGLAS; December 6, 1955; 1825 GCT; 23°12'N, 111°01.5'W; sounding, 750 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 12°.

0	21.8	34.38	4.57	409	0	21.8	34.38	4.57	23.82	409	0.00
9	21.70	34.41	4.75	404	10	21.70	34.41	4.72	23.87	404	0.04
28	21.68	34.37	4.58	407	20	21.69	34.39	4.65	23.86	406	0.08
37	21.70a)	34.49	4.77	398	30	21.70	34.39	4.60	23.86	405	0.12
46	21.60	34.38	4.29	403	50	21.57	34.37	4.49	23.89	403	0.20
55	21.52	34.36	4.68	402	75	14.96	33.72	4.44	25.02	295	0.29
64	17.03	33.78	-	335	100	13.65	34.16	1.90	25.63	237	0.36
73	15.14	33.69	4.51	301	150	12.45	34.44	1.00	26.09	193	0.47
83	14.29	33.93	3.27	266	200	11.33	34.59	0.55	26.42	162	0.56
92	13.76	34.07	2.49	245	250	10.47	34.54	0.47	26.53	151	0.64
115	13.52	34.42	1.40	215	300	9.96	34.57	0.27	26.65	140	0.71
142	12.71	34.43	1.09	199	400	8.85	34.55	0.12	26.82	124	0.85
188	11.56	34.60	0.57	165	500	7.47	34.52	0.16	26.99	108	0.97
244	10.58	34.54	0.48	153							
342	9.57	34.58	0.16	133							
454	8.04	34.52	0.10	115							
574	6.76	34.51	0.25	98							

150.30

BLACK DOUGLAS; December 6, 1955; 1332 GCT; 23°04'N, 111°21'W; sounding, 1440 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	24.1	34.85	4.38	438	0	24.1	34.85	4.38	23.52	438	0.00
9	24.04	34.87	4.06	435	10	24.04	34.87	4.06	23.55	435	0.04
28	24.07	34.84	4.25	437	20	24.04	34.85	4.14	23.54	436	0.09
41	23.80	34.80	4.14	433	30	24.06	34.84	4.25	23.53	437	0.13
51	22.77	34.68	4.43	413	50	22.80	34.68	4.41	23.78	415	0.22
60	22.30	34.64	4.54	403	75	18.44	34.34	3.51	24.68	328	0.31
79	17.16	34.23	3.29	305	100	14.49	34.30	2.23	25.56	244	0.38
92	13.94	33.84	3.44	266	150	12.82	34.61	0.86	26.14	188	0.49
101	14.50	34.36	2.21	239	200	11.53	34.61	0.49	26.40	164	0.58
124	13.36	34.35	1.56	217	250	10.58	34.60	0.38	26.56	148	0.66
151	12.80	34.61	0.84	187	300	10.20	34.60	0.40	26.63	142	0.74
201	11.48	34.61	0.49	163	400	9.79	34.63	0.43	26.72	134	0.88
261	10.46	34.60	0.38	147	500	(9.60)	(34.64)	(0.47)	(26.76)	(129)	(1.01)
486	9.62	34.64	0.45	130							

a) Mean value of 21.64 and 21.75°C.

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; March 10, 1955; 1045 GCT; 11°58'N, 176°08'E; sounding, 2900 fm; wind, 060°, force 5; weather, partly cloudy; sea, smooth; wire angle, 42°. a)

1

0	26.18	34.59		0	26.18	34.59	517	0.00
8	26.17	34.55		10	26.17	34.55	520	0.05
24	26.18	34.55		20	26.18	34.55	521	0.10
43	25.67r	34.58r		30	26.20	34.56	520	0.16
64	26.20	34.60		50	26.20	34.58	520	0.26
88	26.07	34.61		75	26.14	34.60	518	0.39
128	24.90	35.13		100	26.18	34.78	507	0.52
169	20.25	35.00		150	22.85	35.12	388	0.74
250	11.81	34.46		200	16.03	34.69	254	0.90
340	9.77	34.63		250	11.81	34.46	186	1.01
437	8.84	34.65		300	10.43	34.59	154	1.10
552	7.63	34.60		400	9.19	34.65	130	1.24
				500	8.17	34.63	118	1.36

USCGC ROGER B. TANEY; March 11, 1955; 1158 GCT; 9°58'N, 170°36'E; sounding, 2400 fm; wind, 090°, force 4; weather, partly cloudy; sea, moderate; wire angle, 40°.

2

0	26.61	34.60		0	26.61	34.60	530	0.00
9	26.62	34.60		10	26.62	34.60	531	0.05
25	26.63	34.60		20	26.63	34.60	532	0.11
44	26.63	34.59		30	26.63	34.60	532	0.16
63	26.66	34.60		50	26.65	34.59	534	0.27
85	26.24	34.73		75	26.65	34.60	534	0.40
119	22.68	35.25		100	26.20	34.74	511	0.53
155	19.51	35.13		150	19.58	35.14	302	0.73
222	11.18	34.63		200	12.93	34.68	190	0.86
296	9.52	34.65		250	10.35	34.64	147	0.94
370	8.80	34.64		300	9.47	34.65	133	1.01
468	8.07	34.65		400	8.55	34.64	120	1.14

USCGC ROGER B. TANEY; March 13, 1955; 1007 GCT; 8°20'N, 165°26'E; sounding, 2750 fm; wind, 065°, force 6; weather, partly cloudy; sea, moderate; wire angle, 30°.

3

0	27.70	34.74		0	27.70	34.74	552	0.00
9	27.71	34.76		10	27.71	34.76	552	0.06
28	27.73	34.70		20	27.72	34.73	554	0.11
55	27.73	34.71		30	27.73	34.70	557	0.17
79	27.76	34.70		50	27.73	34.71	558	0.28
110	27.74	34.72		75	27.76	34.70	560	0.42
164	19.62	34.96		100	27.76	34.71	560	0.56
325	9.50	34.69		150	21.75	35.10	362	0.79
426	8.57	34.65		200	15.00	34.70	230	0.94
534	7.37	34.60		250	11.23	34.68	160	1.03
646b)	6.40	34.60		300	9.89	34.69	136	1.11
				400	8.83	34.66	124	1.24
				500	7.73	34.61	112	1.36
				600	(6.82)	(34.60)	(101)	(1.46)

a) Operation TROLL was a joint undertaking of the Atomic Energy Commission and the Office of Naval Research. The U. S. Coast Guard furnished the ship, and the Scripps Institution of Oceanography was responsible for the oceanographic data and the collection of water and plankton samples.

b) Value from extrapolated L-Z curve; unprotected thermometer stuck.

SIO

TROLL

OBSERVED				COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T		Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$		m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

4

USCGC ROGER B. TANEY; March 14, 1955; 0231, 0258 GCT; 9°26'N, 163°39'E; sounding, 2750 fm; wind, 070°, force 6; weather, partly cloudy; sea, rough; wire angle, 44°, 38°.

0	27.25	34.61	548	0	27.25	34.61	549	0.00
9	27.25	34.59	550	10	27.25	34.59	555	0.06
25	27.24	34.60	548	20	27.24	34.60	551	0.11
51	27.24	34.58	550	30	27.24	34.60	551	0.17
71	27.26	34.61	548	50	27.24	34.58	552	0.28
98	27.24	34.61	548	75	27.26	34.61	552	0.41
				100	27.24	34.61	552	0.55
136	21.84	35.01	364	150	21.18	34.97	355	0.78
184	14.41	34.50	227	200	12.86	34.53	200	0.92
279	10.34	34.62	143	250	10.91	34.61	159	1.01
373	9.08	34.64	122	300	10.03	34.63	143	1.08
478	7.77	34.58	107	400	8.67	34.63	124	1.22
590a)	6.92	34.57	96	500	(7.56)	(34.58)	(112)	(1.33)

5

USCGC ROGER B. TANEY; March 14, 1955; 2046 GCT; 12°15.5'N, 163°06.5'E; sounding, 2900 fm; wind, 100°, force 6; weather, distant rain; sea, very rough; wire angle, 36°.

0	26.59	34.49	537	0	26.59	34.49	537	0.00
9	26.61	34.45	540	10	26.61	34.45	540	0.05
26	26.60	34.48	538	20	26.60	34.47	540	0.11
52	26.60	34.44	540	30	26.60	34.47	540	0.16
73	26.63	34.45	541	50	26.60	34.44	543	0.27
98	26.62	34.42	543	75	26.63	34.45	544	0.41
142	22.54	35.01	383	100	26.61	34.42	546	0.54
280	10.62	34.36	167	150	22.20	35.00	380	0.77
369	8.36	34.48	122	200	17.60	34.66	289	0.94
468	7.67	34.56	107	250	12.60	34.39	206	1.07
579	6.72	34.57	94	300	9.79	34.38	158	1.16
				400	8.11	34.50	125	1.30
				500	7.38	34.56	110	1.42

6

USCGC ROGER B. TANEY; March 15, 1955; 1505 GCT; 15°02'N, 163°05.5'E; sounding, 1505 fm; wind, 070°, force 7; weather, moderate intermittent rain; sea, very rough; wire angle, 41°.

0	26.31	34.52	526	0	26.31	34.52	527	0.00
9	26.28	34.52	525	10	26.27	34.52	524	0.05
25	26.29	34.49	528	20	26.29	34.49	529	0.11
49	26.28	34.50	527	30	26.29	34.49	529	0.16
69	26.31	34.49	528	50	26.28	34.50	528	0.26
97	26.28	34.50	527	75	26.31	34.49	531	0.40
140b)	25.13	35.21	442	100	26.27	34.51	529	0.53

7

USCGC ROGER B. TANEY; March 16, 1955; 0504, 0532 GCT; 12°17'N, 161°28'E; sounding, 2200 fm; wind, 090°, force 6; weather, distant rain; sea, rough; wire angle, 33°, 43°.

0	26.34	34.42	534	0	26.34	34.42	534	0.00
9	26.36	34.40	536	10	26.36	34.40	536	0.05
27	26.36	34.42	535	20	26.36	34.41	535	0.11
54	26.36	34.42	535	30	26.36	34.42	536	0.16
76	26.36	34.42	535	50	26.36	34.42	537	0.27
108	26.18	34.85	498	75	26.36	34.42	538	0.40
154	21.89	35.22	350	100	26.36	34.42	539	0.54
205	14.68	34.60	225	150	22.42	35.23	369	0.76
				200	15.80	34.65	251	0.92
202	15.58	34.64	241	250	12.23	34.43	196	1.03
293	10.23	34.35	161	300	9.92	34.36	162	1.12
404	8.18	34.50	119	400	8.23	34.50	127	1.26
519	6.90	34.49	102	500	7.13	34.49	112	1.38

a) Value from extrapolated L-Z curve.

b) Pretrip below 140 meters.

OBSERVED				COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD	
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m	

SIO

TROLL

USCGC ROGER B. TANEY; March 16, 1955; 2034 GCT; 9°29'N, 159°45.5'E; sounding, 2730 fm; wind, 075°, force 5; weather, distant rain; sea, rough; wire angle, 32°.

8

0	27.02	34.57	544	0	27.02	34.57	543	0.00
9	27.03	34.57	544	10	27.03	34.57	544	0.05
27	27.02	34.57	544	20	27.02	34.57	544	0.11
54	27.02	34.57	544	30	27.02	34.57	544	0.16
77	27.04	34.57	544	50	27.02	34.57	545	0.27
109	26.88	34.62	536	75	27.04	34.57	547	0.41
153	20.22	35.05	319	100	27.02	34.57	547	0.55
197	15.86	34.70	243	150	20.74	35.07	337	0.77
281	10.14	34.59	142	200	15.40	34.67	241	0.91
357	8.96	34.64	120	250	11.00	34.56	165	1.01
449	8.00	34.61	108	300	9.79	34.61	144	1.09
552	7.24	34.61	97	400	8.45	34.63	119	1.22
				500	7.65	34.61	110	1.34

USCGC ROGER B. TANEY; March 17, 1955; 1136 GCT; 6°49'N, 158°32'E; sounding, 1750 fm; wind, 110°, force 3; weather, partly cloudy; sea, smooth; wire angle, 07°.

9

0	28.20	34.73	569	0	28.20	34.73	569	0.00
11	28.17	34.71	570	10	28.17	34.71	569	0.06
31	28.08	34.76	563	20	28.13	34.74	567	0.11
63	28.08	34.72	566	30	28.08	34.76	564	0.17
90	27.78	34.77	553	50	28.08	34.73	568	0.28
126	23.34a)	34.98	407	75	28.06	34.74	566	0.43
189	15.66	34.71	238	100	27.00	34.83	527	0.56
250	12.34	34.60	180	150	18.90	34.84	307	0.77
369	9.30	34.64	125	200	14.80	34.67	228	0.90
478	8.29	34.64	110	250	12.34	34.60	186	1.01
600	7.20	34.60	98	300	10.80	34.61	158	1.09
725	6.31	34.60	86	400	8.95	34.64	127	1.24
				500	8.12	34.63	116	1.36
				600	7.20	34.60	107	1.47
				700	6.51	34.60	99	1.57

USCGC ROGER B. TANEY; March 18, 1955; 1022 GCT; 4°00'N, 157°00'E; sounding, 1700 fm; wind, 135°, force 2; weather, rain showers; sea, smooth; wire angle, 00°.

10

0	28.83	34.92	575	0	28.83	34.92	575	0.00
11	28.59	34.94	566	10	28.60	34.94	566	0.06
32	28.49	35.05	555	20	28.53	34.99	562	0.11
64	28.46	35.08	552	30	28.50	35.04	558	0.17
90	28.48	35.11	550	50	28.46	35.07	553	0.28
127	28.24	35.10	544	75	28.47	35.09	554	0.42
186	19.92	34.96	318	100	28.48	35.11	554	0.56
245b)	11.08	34.64	154	150	25.47	35.09	466	0.81
				200	16.20	34.77	251	0.99
				250	(10.92)	(34.64)	(157)	(1.09)

a) Alternate value, 23.26°C, not used in interpolation.

b) Pretrip below 245 meters.

SIO

TROLL

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \frac{cm}{g}$	m	°C	‰	$10^{-5} \frac{cm}{g}$	dyn m

11

USCGC ROGER B. TANEY; March 19, 1955; 0227 GCT; 5°43.5'N, 154°48'E; sounding, missing; wind, missing; weather, missing; sea, missing; wire angle, 06°.

0	28.30	34.70	574	0	28.30	34.70	573	0.00
11	28.17	34.72	569	10	28.17	34.72	569	0.06
32	28.19	34.78	565	20	28.18	34.75	568	0.11
63	28.16	34.76	566	30	28.19	34.77	567	0.17
89	28.18	34.78	565	50	28.16	34.77	567	0.28
124	26.98	34.95	515	75	28.18	34.77	569	0.43
183	17.34	34.83	266	100	28.17	34.79	567	0.57
243	11.75	34.65	165	150	22.98	34.99	403	0.81
362	9.14	34.70	118	200	16.45	34.78	256	0.98
473	8.27	34.70	105	250	11.50	34.66	167	1.08
594	7.32	34.64	96	300	10.10	34.68	140	1.16
715	6.31	34.60	86	400	8.77	34.70	121	1.29
				500	8.08	34.70	111	1.40
				600	7.27	34.64	105	1.51
				700	6.43	34.60	97	1.61

12

USCGC ROGER B. TANEY; March 19, 1955; 1858 GCT; 7°29'N, 152°27.5'E; sounding, 2200 fm; wind, 115°, force 5; weather, continuous heavy rain; sea, slight; wire angle, 09°.

0	27.93	34.60	570	0	27.93	34.60	570	0.00
11	27.96	34.73	561	10	27.95	34.72	561	0.06
31	27.98	34.72	563	20	27.97	34.73	562	0.11
63	27.94	34.68	564	30	27.98	34.72	564	0.17
89	27.96	34.77	559	50	27.95	34.70	565	0.28
126	25.24	34.91	466	75	27.95	34.72	565	0.42
187	15.14	34.60	235	100	27.96	34.77	562	0.56
244	11.26	34.58	162	150	23.00	34.92	407	0.81
357	8.98	34.64	120	200	14.07	34.58	219	0.96
464	7.91	34.61	107	250	11.05	34.58	164	1.06
580	7.05	34.53	101	300	9.86	34.62	141	1.13
700	6.21	34.53	90	400	8.51	34.66	119	1.27
				500	7.68	34.59	113	1.38
				600	6.92	34.53	108	1.49
				700	6.21	34.53	100	1.60

13

USCGC ROGER B. TANEY; March 20, 1955; 1622 GCT; 9°31'N, 149°46.5'E; sounding, 2300 fm; wind, 060°, force 5; weather, partly cloudy; sea, slight; wire angle, 19°.

0	27.69	34.65	559	0	27.69	34.65	558	0.00
10	27.71	34.66	559	10	27.71	34.66	559	0.06
30	27.73	34.64	561	20	27.72	34.65	561	0.11
60	27.73	34.65	560	30	27.73	34.64	562	0.17
86	27.75	34.66	560	50	27.73	34.65	562	0.28
118	25.40	34.89	472	75	27.74	34.66	563	0.42
177	17.18	34.77	267	100	27.74	34.66	564	0.56
238	12.37	34.50	188	150	20.73	34.90	348	0.79
358	8.93	34.59	123	200	14.00	34.58	218	0.93
470	7.86	34.62	105	250	12.05	34.49	188	1.03
592	6.88	34.60	93	300	10.32	34.52	155	1.12
716	6.12	34.56	87	400	8.48	34.62	122	1.26
				500	7.62	34.62	110	1.37
				600	6.82	34.60	102	1.48
				700	6.23	34.57	97	1.58

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \frac{cm}{g}$	m	°C	‰	$10^{-5} \frac{cm}{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; March 21, 1955; 0715 GCT; 11°25'N, 147°26'E; sounding, 3100 fm; wind, 045°, force 4; weather, partly cloudy; sea, slight; wire angle, 24°.

14

0	27.47	34.42	568	0	27.47	34.42	568	0.00
10	27.50	34.40	571	10	27.50	34.40	571	0.06
29	27.30	34.38	566	20	27.37	34.39	568	0.11
54	27.36	34.47	562	30	27.30	34.38	567	0.17
79	27.42	34.52	560	50	27.34	34.46	564	0.28
108	27.36	34.54	556	75	27.40	34.51	563	0.42
153	22.86	35.18	380	100	27.37	34.53	561	0.57
198	16.87	34.77	260	150	23.33	35.18	398	0.80
290	10.11	34.49	149	200	16.60	34.75	261	0.97
378	7.98	34.56	111	250	13.00	34.52	204	1.09
478	7.00	34.61	94	300	9.77	34.49	149	1.17
595	6.23	34.49	93	400	7.75	34.57	114	1.31
				500	6.86	34.61	100	1.41

USCGC ROGER B. TANEY; March 22, 1955; 0027 GCT; 13°25.5'N, 144°31'E; sounding, 1300 fm; wind, 045°, force 5; weather, partly cloudy; sea, slight; wire angle, 21°.

15

0	27.37	34.47	562	0	27.37	34.47	561	0.00
10	27.36	34.42	565	10	27.36	34.42	565	0.06
30	27.36	34.41	566	20	27.36	34.42	566	0.11
55	27.36	34.40	566	30	27.36	34.41	567	0.17
80	27.37	34.40	567	50	27.36	34.40	569	0.28
110	27.29	34.43	562	75	27.36	34.40	570	0.43
161	23.64	35.30	392	100	27.33	34.42	568	0.57
212	18.60	34.93	288	150	26.90	34.63	542	0.85
313	11.16	34.40	173	200	19.55	35.03	311	1.06
416	8.60	34.41	131	250	15.17	34.60	242	1.20
527	7.12	34.43	109	300	11.64	34.41	188	1.30
649	5.87	34.49	89	400	8.88	34.41	144	1.47
				500	7.45	34.42	122	1.60
				600	6.35	34.46	106	1.72

USCGC ROGER B. TANEY; March 24, 1955; 0216 GCT; 13°25'N, 144°31.5'E; sounding, 1400 fm; wind, 025°, force 5; weather, distant rain; sea, slight; wire angle, 27°.

15I

0	27.38	34.41	566	0	27.38	34.41	566	0.00
10	27.36	34.42	565	10	27.36	34.42	565	0.06
28	27.34	34.42	564	20	27.35	34.42	566	0.11
53	27.35	34.40	566	30	27.35	34.42	566	0.17
77	27.36	34.42	565	50	27.35	34.40	568	0.28
104	27.33	34.42	564	75	27.35	34.42	568	0.43
150	26.06	35.01	483	100	27.35	34.42	569	0.57
195	19.95	34.97	318	150	26.06	35.01	489	0.83
281a)	13.20	34.47	205	200	19.57	34.94	318	1.03
401	9.08	34.34	144	250	15.54	34.64	247	1.17
506	7.27	34.42	112	300	11.74	34.40	190	1.28
621	6.28	34.57	88	400	9.09	34.34	152	1.46
				500	7.38	34.40	123	1.59
				600	6.45	34.53	102	1.70

a) Alternate depth, 296 meters, not used in interpolation.

SIO

TROLL

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

16

USCGC ROGER B. TANEY; March 24, 1955; 1518 GCT; 15°34'N, 143°00.5'E; sounding, 1500 fm; wind, 070°, force 5; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	27.04	34.52	548	0	27.04	34.52	548	0.00
11	27.06	34.50	550	10	27.05	34.50	550	0.05
32	27.06	34.49	551	20	27.06	34.50	551	0.11
63	26.98	34.61	540	30	27.06	34.49	552	0.17
90	26.95	34.78	527	50	27.03	34.55	549	0.28
127	26.49	35.08	492	75	26.98	34.69	536	0.41
189	23.10	35.34	375	100	26.91	34.84	525	0.54
247	17.85	34.92	271	150	26.30	35.14	488	0.80
361	12.80	34.51	195	200	21.93	35.26	355	1.01
473	8.56	34.36	134	250	17.73	34.91	277	1.17
596	6.40	34.40	102	300	15.72	34.74	246	1.30
722	5.61	34.52	84	400	11.00	34.42	178	1.51
				500	8.00	34.36	134	1.67
				600	6.37	34.40	110	1.79
				700	5.72	34.50	95	1.89

17

USCGC ROGER B. TANEY; March 25, 1955; 0448 GCT; 17°49.5'N, 141°25.5'E; sounding, 2500 fm; wind, 070°, force 5; weather, partly cloudy; sea, moderate; wire angle, 16°.

0	26.24	35.07	484	0	26.24	35.07	484	0.00
10	26.27	35.05	487	10	26.27	35.05	487	0.05
30	26.22	35.05	485	20	26.24	35.05	487	0.10
61	26.13	35.06	482	30	26.22	35.05	486	0.15
86	26.00	35.11	474	50	26.16	35.06	484	0.24
120	25.24	35.07	455	75	26.07	35.09	481	0.36
177	21.34	35.16	340	100	25.91	35.11	476	0.48
236	17.95	34.89	276	150	23.40	35.20	399	0.70
352	14.07	34.61a)	212	200	19.84	35.04	317	0.88
461	10.16	34.33a)	162	250	17.35	34.84	275	1.04
581	7.50	34.32	122	300	16.07	34.75	252	1.17
707	5.74	34.42	92	400	12.20	34.47	196	1.40
				500	9.22	34.33	157	1.57
				600	7.23	34.33	127	1.71
				700	5.83	34.41	103	1.83

18

USCGC ROGER B. TANEY; March 25, 1955; 1723 GCT; 19°55.5'N, 139°59'E; sounding, 2650 fm; wind, 070°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°.

0	25.66	35.07	467	0	25.66	35.07	467	0.00
10	25.68	35.07	468	10	25.68	35.07	468	0.05
29	25.68	35.07	468	20	25.68	35.07	469	0.09
54	25.69	34.99	474	30	25.68	35.07	469	0.14
78	25.68	35.02	471	50	25.69	35.00	475	0.24
106	25.68	35.01	472	75	25.68	35.02	474	0.35
153	24.93	35.03	449	100	25.68	35.01	476	0.47
199	23.33	35.16	394	150	25.05	35.03	458	0.71
296	18.49	34.93	286	200	23.32	35.16	402	0.92
398	14.79	34.64	224	250	20.57	35.06	336	1.11
500	10.96	34.34	174	300	18.38	34.93	292	1.26
612	7.52	34.14	136	400	14.70	34.63	234	1.52
				500	10.96	34.34	185	1.73
				600	7.91	34.16	150	1.90

a) Salinity samples at 352 and 461 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; March 26, 1955; 0654 GCT; 22°12'N, 138°26.5'E; sounding, 2550 fm; wind, 070°, force 5; weather, partly cloudy; sea, moderate; wire angle, 25°.

19

0	24.83	35.11	440	0	24.83	35.11	440	0.00
10	24.79	35.01	446	10	24.79	35.01	446	0.04
28	24.65	35.08	437	20	24.70	35.05	441	0.09
53	24.63	35.09	436	30	24.65	35.08	438	0.13
78	23.44	35.08a)	403	50	24.64	35.09	438	0.22
105	22.40	35.09	374	75	23.57	35.08	409	0.33
154	19.86	34.94	318	100	22.58	35.09	400	0.43
204	18.20	34.87	283	150	20.02	34.95	326	0.61
306	15.52	34.64a)	240	200	18.33	34.87	293	0.76
410	12.56	34.40	198	250	17.13	34.78	273	0.90
514	9.82	34.25	162	300	15.72	34.66	251	1.04
632	6.77	34.08	131	400	12.88	34.42	212	1.27
				500	10.17	34.27	177	1.46
				600	7.67	34.13	149	1.62

USCGC ROGER B. TANEY; March 26, 1955; 2024 GCT; 20°15'N, 136°01'E; sounding, 2450 fm; wind, 060°, force 4; weather, partly cloudy; sea, slight; wire angle, 06°.

20

0	25.61	34.88	479	0	25.61	34.88	479	0.00
11	25.63	34.88	480	10	25.62	34.88	480	0.05
32	25.64	34.91	478	20	25.64	34.89	480	0.10
59	24.48	35.02	436	30	25.64	34.91	479	0.14
85	23.58	35.03	410	50	24.67	35.02	443	0.24
117	22.88	34.98	394	75	23.93	35.03	422	0.34
172	20.49	35.02	328	100	23.21	35.00	406	0.45
226	18.02	34.84	281	150	21.79	35.00	368	0.64
337	15.31	34.64	235	200	19.03	34.93	306	0.81
449	11.84	34.41	184	250	17.38	34.79	278	0.96
559	8.41	34.20	144	300	16.33	34.71	261	1.09
674	6.30	34.21	115	400	13.42	34.53	215	1.33
				500	10.17	34.28	175	1.52
				600	7.67	34.20	144	1.68

USCGC ROGER B. TANEY; March 27, 1955; 1430 GCT; 17°59'N, 134°24'E; sounding, 3000 fm; wind, 080°, force 4; weather, partly cloudy; sea, slight; wire angle, 15°.

21

0	25.74	34.92	480	0	25.74	34.92	480	0.00
10	25.77	34.96	478	10	25.77	34.96	478	0.05
31	25.78	34.93	481	20	25.77	34.95	480	0.10
57	24.80	34.98	448	30	25.78	34.93	482	0.14
83	24.19	35.01	429	50	25.12	34.97	460	0.24
114	23.14	35.01	400	75	24.47	35.00	440	0.35
168	20.98	35.06	338	100	23.67	35.01	417	0.46
222	18.69	34.96	288	150	21.83	35.05	366	0.65
328	14.59	34.63	221	200	19.39	35.01	309	0.82
434	11.12	34.33	178	250	17.50	34.87	275	0.97
539	7.92	34.25	134	300	15.53	34.71	244	1.10
658	6.12	34.26	110	400	12.35	34.44	202	1.32
				500	9.00	34.25	158	1.50
				600	6.95	34.26	129	1.64

a) Salinity samples at 78 and 306 meters appear to have been reversed; they are assumed to be listed in correct order.

SIO

TROLL

OBSERVED				COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T		Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$		m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

22

USCGC ROGER B. TANEY; March 28, 1955; 0342 GCT; 15°43'N, 132°16'E; sounding, 2800 fm; wind, 060°, force 4; weather, distant rain; sea, moderate; wire angle, 27°.

0	27.21	34.52	553	0	27.21	34.52	553	0.00
10	27.24	34.42	561	10	27.24	34.42	561	0.06
29	27.14	34.40	560	20	27.20	34.41	562	0.11
53	27.12	34.61	544	30	27.14	34.40	561	0.17
77	27.08	34.60	544	50	27.13	34.58	548	0.28
104	26.82	34.83	519	75	27.09	34.60	547	0.42
153	24.04	35.25	407	100	26.96	34.76	532	0.55
201	20.10	35.04	317	150	24.36	35.24	423	0.79
300	15.81	34.69	242	200	20.12	35.04	324	0.98
404	11.49	34.36	182	250	18.10	34.88	288	1.13
508	8.02	34.32	130	300	15.81	34.69	251	1.26
621	6.34	34.42	100	400	11.65	34.37	192	1.49
				500	8.20	34.32	141	1.65
				600	6.60	34.40	114	1.83

23

USCGC ROGER B. TANEY; March 28, 1955; 1623 GCT; 13°40'N, 130°15.5'E; sounding, 3100 fm; wind, 070°, force 5; weather, partly cloudy; sea, moderate; wire angle, 26°.

0	27.31	34.46	561	0	27.31	34.46	561	0.00
10	27.33	34.47	560	10	27.33	34.47	561	0.06
29	27.33	34.49	559	20	27.33	34.48	560	0.11
53	27.25	34.51	555	30	27.32	34.49	560	0.17
77	27.00	34.77	529	50	27.27	34.51	557	0.28
104	26.61	34.85	511	75	27.03	34.76	534	0.42
151	24.74	35.26	427	100	26.67	34.84	517	0.55
199	20.78	35.11	329	150	24.77	35.26	433	0.79
296	13.25	34.54	201	200	20.75	35.11	336	0.98
387	9.06	34.41	138	250	16.45	34.78	258	1.13
482	7.24	34.45	109	300	12.92	34.52	204	1.24
597	6.12	34.49	92	400	8.73	34.41	140	1.33
				500	7.04	34.46	114	1.50
				600	(6.11)	(34.49)	(100)	(1.61)

24

USCGC ROGER B. TANEY; March 29, 1955; 0442 GCT; 11°40'N, 128°19'E; sounding, 3100 fm; wind, 060°, force 3; weather, partly cloudy; sea, slight; wire angle, 33°.

0	27.95	34.12	605	0	27.95	34.12	605	0.00
9	27.83	34.09	603	10	27.82	34.09	603	0.06
27	27.74	-		20	27.77	34.09	603	0.12
46	27.74	34.10	600	30	27.74	34.10	601	0.18
69	27.74	34.12	598	50	27.74	34.10	602	0.30
92	25.51	34.85	478	75	27.58	34.20	591	0.45
134	22.15	35.08	568	100	24.73	34.97	451	0.58
174	16.68	34.78	255	150	19.43	34.95	312	0.77
254	10.44	34.78r		200	14.05	34.58	218	0.90
341	8.68	34.37	136	250	10.63	34.40	170	1.00
432	7.48	34.57	103	300	9.37	34.38	151	1.08
542	6.58	-		400	7.86	34.46	124	1.22
				500	6.90			

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \frac{cm^3}{g}$	m	°C	‰	$10^{-5} \frac{cm^3}{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; March 29, 1955; 1834 GCT; 9°14'N, 126°30.5'E; sounding, 1600 fm; wind, 045°, force 4; weather, partly cloudy; sea, slight; wire angle, 11°.

25

0	27.51	34.27	580	0	27.51	34.27	580	0.00
10	27.52	34.23	584	10	27.52	34.23	584	0.06
31	27.38	34.27	576	20	27.47	34.25	582	0.12
57	27.10	34.48	553	30	27.39	34.27	577	0.17
84	26.52	34.67	522	50	27.29	34.36	570	0.29
116	24.70	35.18	431	75	26.78	34.59	538	0.43
170	19.70	34.98	312	100	25.90	34.92	490	0.56
221	18.29	34.88	285	150	21.20	35.06	348	0.77
324	10.95	34.37	172	200	19.00	34.93	305	0.93
427	8.67	34.31	140	250	15.70	34.70	246	1.07
536	6.53	34.38	105	300	11.67	34.41	188	1.78
653	5.54	34.47	86	400	9.30	34.31	157	1.35
				500	7.03	34.36	120	1.49
				600	5.94	34.43	102	1.60

USCGC ROGER B. TANEY; March 30, 1955; 0822 GCT; 11°36.5'N, 127°27'E; sounding, 3100 fm; wind, 070°, force 3; weather, distant rain; sea, smooth; wire angle, 25°.

26

0	28.29	34.31	602	0	28.29	34.31	602	0.00
10	27.78	34.29	587	10	27.78	34.29	587	0.06
29	27.71	34.32	583	20	27.73	34.31	585	0.12
52	27.70	34.30	584	30	27.71	34.32	584	0.18
73	27.60	34.35	578	50	27.70	34.30	586	0.29
96	25.05	35.16	443	75	27.41	34.42	571	0.44
134	20.92	35.09	334	100	24.75	35.16	438	0.56
191a)	15.33	34.64	236	150	19.40	34.98	309	0.75

USCGC ROGER B. TANEY; March 30, 1955; 1906 GCT; 9°01'N, 127°41.5'E; sounding, 3000 fm; wind, 120°, force 3; weather, partly cloudy; sea, smooth; wire angle, 21°.

27

0	27.68	34.59r	(599)	0	27.68	(34.09)	599	(0.00)
9	27.68	34.09	599	10	27.68	34.09	599	0.06
26	27.62	34.13	594	20	27.64	34.12	597	0.12
48	27.58	34.34	578	30	27.60	34.17	592	0.17
68	24.12	34.96	430	50	27.57	34.35	579	0.30
92	21.44	34.96	357	75	23.60	34.96	418	0.42
136	18.70	34.96	288	100	21.09	34.96	326	0.51
178	13.84	34.59	209	150	17.75	34.93	273	0.66
265b)	8.48	34.50	123	200	12.45	34.56	189	0.78
356	6.58	34.44	101	250	9.04	34.51	136	0.86
454	5.94	34.48	90	300	7.61	34.46	119	0.92
558	5.58	34.58	79	400	6.21	34.45	102	1.03
				500	5.78	34.52	92	1.13

USCGC ROGER B. TANEY; March 31, 1955; 1008 GCT; 6°09'N, 128°09.5'E; sounding, 2900 fm; wind, 045°, force 4; weather, partly cloudy; sea, smooth; wire angle, 12°.

28

0	28.28	34.14	614	0	28.28	34.14	614	0.00
11	28.19	34.14	611	10	28.20	34.14	611	0.06
31	28.02	34.22	600	20	28.11	34.18	607	0.12
57	27.38	34.34	571	30	28.03	34.22	602	0.18
84	26.16	34.78	503	50	27.99	34.23	600	0.30
114	23.66	35.17	402	75	26.74	34.57	538	0.44
166	19.35	34.96	304	100	24.20	35.15	423	0.57
220	13.46	34.62	199	150	21.15	35.03	350	0.76
330	9.46	34.59	131	200	15.30	34.72	235	0.90
442	7.63	34.52	109	250	12.30	34.60	185	1.01
554	7.12	34.60	96	300	10.28	34.59	150	1.09
674	6.52	34.61	88	400	8.18	34.54	122	1.23
				500	7.37	34.55	112	1.35
				600	6.91	34.60	102	1.45

a) Pretrip below 191 meters.

b) Alternate depth, 305 meters, not used in interpolation.

281

SIO

TROLL

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \frac{3}{\text{cm/g}}$	m	°C	‰	$10^{-5} \frac{3}{\text{cm/g}}$	dyn m

29

USCGC ROGER B. TANEY; April 1, 1955; 0106 GCT; 3°01'N, 128°28.5'E; sounding, missing; wind, calm; weather, partly cloudy; sea, smooth; wire angle, 05°.

0	29.13	34.72	599	0	29.13	34.72	599	0.00
11	29.21	34.88	590	10	29.21	34.87	590	0.06
32	29.01	34.90	582	20	29.13	34.89	588	0.12
59	28.55	35.10	553	30	29.03	34.90	584	0.18
84	27.86	35.23	522	50	28.59	35.10	556	0.29
114	26.82	35.35	482	75	28.42	35.13	551	0.43
165	22.48	35.17	370	100	27.43	35.30	507	0.56
219	16.54	34.84	247	150	23.76	35.23	407	0.79
329	11.00	34.57	158	200	16.88	34.86	259	0.96
437	8.07	34.65	106	250	14.93	34.76	205	1.07
548	6.83	34.62	91	300	12.30	34.62	164	1.16
669	5.83	34.61	80	400	8.80	34.64	126	1.31
				500	7.32	34.64	104	1.42
				600	6.37	34.62	95	1.52

30

USCGC ROGER B. TANEY; April 1, 1955; 1543 GCT; 5°58'N, 127°22.5'E; sounding, 4550 fm; wind, 360°, force 4; weather, distant rain; sea, smooth; wire angle, 10°.

0	28.09	34.17	606	0	28.09	34.17	606	0.00
11	28.12	34.14	609	10	28.12	34.14	609	0.06
31	28.04	34.15	606	20	28.08	34.14	609	0.12
57	27.76	34.25	590	30	28.05	34.15	607	0.18
83	27.16	34.56	549	50	27.82	34.22	595	0.30
113	24.83	35.26	429	75	27.40	34.43	569	0.45
165	19.48	35.06	300	100	26.35	35.01	496	0.58
218	13.50	34.57	204	150	21.20	35.14	344	0.79
325	9.24	34.60	127	200	15.80	34.78	241	0.94
434	7.80	34.61	105	250	11.34	34.55	172	1.04
543	7.55	34.66	98	300	10.35	34.59	152	1.12
663	6.78	34.64	89	400	8.00	34.60	116	1.26
				500	7.71	34.62	111	1.37
				600	7.24	34.66	103	1.48

31

USCGC ROGER B. TANEY; April 2, 1955; 0953 GCT; 8°57.5'N, 126°29'E; sounding, 1150 fm; wind, 035°, force 3; weather, partly cloudy; sea, smooth; wire angle, 08°.

0	28.07	34.25	599	0	28.07	34.25	599	0.00
11	27.69	34.32	582	10	27.70	34.32	582	0.06
31	27.32	34.31	572	20	27.47	34.32	576	0.12
58	26.98	34.57	543	30	27.33	34.31	573	0.17
86	26.61	35.08	495	50	27.17	34.35	566	0.29
116	24.48	35.22	422	75	26.95	34.88	522	0.42
170	20.44	35.07	324	100	26.00	35.20	472	0.55
218	16.51	34.77	252	150	21.70	35.14	357	0.76
322	11.32	34.44	173	200	18.00	34.90	284	0.92
428	7.93	34.38	124	250	14.55	34.62	228	1.04
538	6.76	34.41	106	300	12.49	34.50	198	1.15
655	5.52	34.52	82	400	8.53	34.38	140	1.32
				500	7.19	34.39	121	1.45
				600	6.15	34.45	104	1.56

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$\frac{-5}{10} \frac{3}{\text{cm/g}}$	m	°C	‰	$\frac{-5}{10} \frac{3}{\text{cm/g}}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; April 3, 1955; 0430 GCT; 12°23'N, 125°51'E; sounding, 3700 fm; wind, 090°, force 3; weather, distant rain; sea, smooth; wire angle, 12°.

32R

0	28.01	34.34	591	0	28.01	34.34	591	0.00
11	27.71	34.34	582	10	27.72	34.34	582	0.06
32	27.53	34.43	570	20	27.63	34.38	577	0.12
58	27.25	34.54	553	30	27.55	34.42	572	0.17
84	26.93	34.69	532	50	27.33	34.50	560	0.29
115	25.87	35.21	463	75	27.00	34.65	541	0.42
168	21.95	35.20	354	100	26.60	34.99	505	0.56
219	17.96	34.90	275	150	23.80	35.21	408	0.78
326	11.39	34.42	176	200	19.84	35.07	316	0.96
436	8.10	34.38	126	250	16.11	34.74	252	1.11
546	6.56	34.41	103	300	12.65	34.49	201	1.22
665	5.67	34.49	86	400	9.02	34.38	148	1.39
				500	7.09	34.39	120	1.53
				600	6.14	34.44	104	1.64

USCGC ROGER B. TANEY; April 3, 1955; 1920 GCT; 15°16.5'N, 124°17'E; sounding, 3050 fm; wind, 055°, force 3; weather, partly cloudy; sea, smooth; wire angle, 11°.

33

0	27.54	34.41	571	0	27.54	34.41	571	0.00
11	27.43	34.41	568	10	27.42	34.41	568	0.06
31	27.14	34.49	553	20	27.29	34.49	559	0.11
58	26.90	34.50	545	30	27.15	34.49	555	0.17
84	26.68	34.77	519	50	26.95	34.50	549	0.28
116	25.46	34.84	478	75	26.88	34.68	534	0.41
170	23.36	34.88a)	414	100	25.93	34.84	496	0.54
222	19.44	34.99	304	150	24.17	34.85	446	0.78
327	13.56	34.53	208	200	21.90	34.96	376	0.98
432	9.03	34.30	146	250	18.10	34.91	286	1.15
542	7.07	34.35	114	300	14.98	34.65	236	1.28
660	5.80	34.48	89	400	10.15	34.31	171	1.48
				500	7.68	34.32	132	1.64
				600	6.42	34.40	112	1.76

USCGC ROGER B. TANEY; April 4, 1955; 1220 GCT; 18°30'N, 122°29.5'E; sounding, 1000 fm; wind, 040°, force 7; weather, partly cloudy; sea, high; wire angle, 35°.

34

0	27.13	34.45	556	0	27.13	34.45	556	0.00
9	27.14	34.43	558	10	27.14	34.43	558	0.06
26	27.03	- b)		20	27.15	34.49	554	0.11
52	25.96	34.84	492	30	26.97	34.54	544	0.17
73	25.58	34.83	482	50	26.00	34.84	495	0.27
100	24.46	34.82	450	75	25.50	34.83	483	0.39
142	23.40	34.87	417	100	24.46	34.82	454	0.51
179	21.70	34.96	364	150	22.80	34.91	404	0.72
245	17.06	34.78	264	200	20.59	34.93	345	0.91
313	13.86	34.62	207	250	16.88	34.77	269	1.06
382	11.36	34.41	176	300	14.48	34.65	226	1.19
452	9.26	34.41	141	400	10.83	34.41	176	1.39

a) Alternate value, 34.83‰, not used in interpolation.

b) Cracked bottle.

SIO

TROLL

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δT	Z	T	S	δT	ΔD
m	°C	‰	$10^{-5} \frac{m^3}{cm/g}$	m	°C	‰	$10^{-5} \frac{m^3}{cm/g}$	dyn m

35

USCGC ROGER B. TANEY; April 4, 1955; 2204 GCT; 20°01'N, 121°54'E; sounding, 1300 fm; wind, 035°, force 6; weather, partly cloudy; sea, high; wire angle, 30°.

0	25.88	34.87	488	0	25.88	34.87	488	0.00
9	25.90	34.88	488	10	25.90	34.88	488	0.05
28	25.88	34.74	497	20	25.90	34.80	495	0.10
56	25.63	34.89	479	30	25.88	34.75	498	0.15
79	25.34	34.82	476	50	25.72	34.86	486	0.25
108	24.38	34.82	448	75	25.34	34.83	480	0.37
156	22.86	34.92	398	100	24.56	34.82	457	0.48
204	20.56	34.96	335	150	23.28	34.89	417	0.70
298	15.90	34.71	243	200	20.80	34.96	348	0.89
367	13.89	34.60	209	250	17.87	34.83	287	1.05
409	11.34	34.40	176	300	15.88	34.71	251	1.19
471	10.14	34.39	157	400	11.90	34.44	192	1.41

36

USCGC ROGER B. TANEY; April 5, 1955; 1506 GCT; 21°30'N, 124°44.5'E; sounding, 3050 fm; wind, 105°, force 6; weather, partly cloudy; sea, very rough; wire angle, 00°.

0	25.74	34.77	491	0	25.74	34.77	491	0.00
11	25.78	34.80	490	10	25.78	34.80	490	0.05
32	25.77	34.86	486	20	25.78	34.83	489	0.10
64	25.63	34.87	481	30	25.77	34.85	487	0.15
91	25.08	34.88	464	50	25.72	34.87	485	0.24
128	24.60	34.94	446	75	25.63	34.87	484	0.37
190	22.46	34.95	385	100	24.88	34.90	461	0.48
251	19.46	34.97	306	150	23.85	34.95	428	0.71
368	14.72	34.64	223	200	21.50	34.96	366	0.90
479	10.00	34.51	146	250	19.80	34.97	324	1.08
600	7.06	34.58	97	300	17.50	34.84	278	1.23
726	5.96	34.48	91	400	13.14	34.56	208	1.47
				500	9.30	34.53	143	1.65
				600	7.06	34.58	106	1.77
				700	6.12	34.50	100	1.87

37

USCGC ROGER B. TANEY; April 6, 1955; 0643 GCT; 22°59'N, 127°36'E; sounding, 2925 fm; wind, 070°, force 6; weather, continuous slight drizzle; sea, rough; wire angle, 15°.

0	24.42	35.02	435	0	24.42	35.02	435	0.00
10	24.45	35.02	436	10	24.45	35.02	436	0.04
31	24.44	35.01	436	20	24.45	35.02	437	0.09
62	24.38	35.06	431	30	24.44	35.01	437	0.13
87	23.92	35.04	419	50	24.40	35.04	435	0.22
123	23.62	34.97	416	75	24.00	35.05	423	0.33
180	22.55	34.98	386	100	23.82	35.01	421	0.43
236	19.30	34.93	305	150	23.18	34.97	408	0.64
351	15.48	34.64	239	200	21.50	34.98	364	0.83
460	12.00	34.45	184	250	18.82	34.90	303	1.00
580	8.51	34.18	147	300	17.20	34.79	275	1.14
706	5.98	34.17	114	400	13.98	34.56	224	1.39
				500	10.86	34.36	182	1.59
				600	8.15	34.18	152	1.76
				700	6.12	34.17	125	1.90

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \frac{cm^3}{g}$	m	°C	‰	$10^{-5} \frac{cm^3}{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; April 6, 1955; 2058 GCT; 25°46.5'N, 127°29'E; sounding, 750 fm; wind, 030°, force 5; weather, partly cloudy; sea, slight; wire angle, 27°.

38

0	22.89	34.92	399	0	22.89	34.92	399	0.00
10	22.92	34.93	399	10	22.92	34.93	399	0.04
28	22.92	34.89	402	20	22.92	34.91	401	0.08
57	22.70	34.90	395	30	22.92	34.89	403	0.12
81	22.06	34.99	372	50	22.93	34.90	403	0.20
112	21.82	35.02	363	75	22.16	34.98	378	0.30
164	21.28	34.96	353	100	21.87	35.02	368	0.39
216	20.32	34.94	330	150	21.48	34.99	362	0.57
317	16.72	34.77	256	200	20.60	34.95	343	0.75
414	14.42	34.60	220	250	19.43	34.92	318	0.92
523	11.07	34.52	163	300	17.35	34.82	276	1.06
644	8.20	34.23	139	400	14.75	34.62	236	1.32
				500	11.90	34.54	188	1.53
				600	9.13	34.34	156	1.70

USCGC ROGER B. TANEY; April 9, 1955; 1514 GCT; 29°34'N, 128°14'E; sounding, 540 fm; wind, 190°, force 4; weather, lightning visible; sea, smooth; wire angle, 06°.

39

0	21.46	34.51	390	0	21.46	34.51	390	0.00
11	21.20	34.72	368	10	21.21	34.72	369	0.04
32	21.08	34.75	363	20	21.20	34.73	369	0.07
59	20.04	34.67	342	30	21.11	34.75	365	0.11
86	18.05	34.67	294	50	20.79	34.74	358	0.18
117	16.50	34.68	258	75	18.60	34.67	310	0.27
173	13.48	34.58	203	100	17.23	34.68	278	0.34
228	11.38	34.48	171	150	15.00	34.64	232	0.47
337	9.07	34.46	135	200	12.60	34.53	195	0.57
447	7.12	34.41	111	250	10.90	34.48	169	0.66
559	5.98	34.41	96	300	9.70	34.47	149	0.74
679	5.29	34.44	86	400	7.88	34.43	127	0.88
				500	6.50	34.41	109	1.00
				600	5.72	34.42	100	1.10
				700	(5.21)	(34.43)	(92)	(1.20)

USCGC ROGER B. TANEY; April 10, 1955; 0010 GCT; 31°10'N, 128°48'E; sounding, 380 fm; wind, 220°, force 2; weather, partly cloudy; sea, smooth; wire angle, 00°.

40

0	19.40	34.76	320	0	19.40	34.76	320	0.00
11	19.16	34.73	316	10	19.17	34.73	316	0.03
32	18.85	34.76	307	20	19.03	34.74	313	0.06
59	18.22	34.85	285	30	18.89	34.76	308	0.09
86	17.42	34.75	274	50	18.33	34.85	290	0.15
116	16.60	34.73	257	75	17.94	34.84	282	0.23
170	14.46	34.63	218	100	17.03	34.74	268	0.29
225	12.68	34.56	189	150	15.32	34.66	238	0.42
335	10.26	34.44	155	200	13.34	34.59	204	0.53
447	8.50	34.41	130	250	12.00	34.53	184	0.63
559	7.06	34.40	111	300	10.98	34.47	172	0.72
679	6.11	34.41	98	400	9.19	34.41	148	0.88
				500	8.82	34.41	144	1.02
				600	6.69	34.40	115	1.15
				700	(6.08)	(34.41)	(107)	(1.26)

SIO

TROLL

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δT	Z	T	S	δT	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

41

USCGC ROGER B. TANEY; April 10, 1955; 1305 GCT; 30°57.5'N, 131°42'E; sounding, 900 fm; wind, 280°, force 5; weather, partly cloudy; sea, slight; wire angle, 16°.

0	22.26	34.72	396	0	22.26	34.72	396	0.00
11	22.25	34.77	393	10	22.25	34.77	393	0.03
31	21.93	34.72	388	20	22.08	34.76	390	0.07
57	21.24	34.76	367	30	21.94	34.72	389	0.11
83	20.67	34.78	350	50	21.40	34.75	373	0.19
114	19.33	34.74	320	75	20.69	34.78	353	0.28
165	17.85	34.76	283	100	20.10	34.77	340	0.37
213	15.99	34.65	249	150	18.44	34.76	302	0.53
310	12.24	34.48	188	200	16.63	34.70	266	0.67
408	8.25	34.29	135	250	15.10	34.61	240	0.80
510	6.48	34.26	114	300	12.77	34.51	202	0.91
624	4.84	34.33	89	400	8.50	34.30	145	1.08
				500	6.63	34.26	123	1.21
				600	5.21	34.32	101	1.33

42

USCGC ROGER B. TANEY; April 11, 1955; 0521, 0646 GCT; 28°19'N, 134°02.5'E; sounding, 2020 fm; wind, 260°, force 3; weather, partly cloudy; sea, smooth; wire angle, 14°, 09°.

0	21.50	34.86	366	0	21.50	34.86	366	0.00
11	21.24	34.86	359	10	21.25	34.86	360	0.04
31	21.13	34.87	356	20	21.21	34.86	360	0.07
57	20.65	34.88	343	30	21.14	34.87	356	0.11
84	20.40	34.86	338	50	20.75	34.88	348	0.18
114	20.10	34.82	333	75	20.60	34.88	344	0.26
168	19.28	34.84	311	100	20.24	34.83	340	0.35
218	18.65a)	34.78	300	150	19.47	34.84	321	0.52
323	16.32	34.68	254	200	19.03	34.82	314	0.67
428	13.76	34.51	213	250	17.84	34.75	291	0.83
536	10.56	34.29	171	300	16.83	34.70	273	0.97
657	7.90	34.21	136	400	14.47	34.56	235	1.22
				500	11.57	34.38	193	1.43
612	8.78	34.17	152	600	9.03	34.17	167	1.61
820	5.51	34.17	109	700	7.21	34.19	139	1.77
1018	4.03	34.33	81	800	5.78	34.16	122	1.90
1226	3.26	34.42	67	1000	4.16	34.31	92	2.11
				1200	3.37	34.41	78	2.28

43

USCGC ROGER B. TANEY; April 11, 1955; 1416 GCT; 27°00'N, 135°01'E; sounding, 2350 fm; wind, 040°, force 3; weather, partly cloudy; sea, smooth; wire angle, 03°.

0	20.95	34.68	365	0	20.95	34.68	365	0.00
11	20.81	34.82	351	10	20.82	34.81	353	0.04
32	20.59	34.86	343	20	20.68	34.84	346	0.07
59	20.27	34.83	337	30	20.61	34.86	344	0.11
86	19.82	34.84	324	50	20.40	34.84	342	0.17
118	19.41	34.83	315	75	20.04	34.84	334	0.26
175	19.10	34.85	306	100	19.61	34.83	324	0.34
231	18.45b)	34.86	290	150	19.23	34.85	315	0.50
337	16.87	34.75	261	200	18.95	34.85	309	0.66
445	14.74	34.57	229	250	18.25	34.86	293	0.81
554	10.86	34.34	172	300	17.45	34.80	282	0.95
674	8.22	34.22	140	400	15.68	34.64	255	1.22
				500	13.10	34.48	215	1.45
				600	9.82	34.28	172	1.65

a) Alternate value, 18.80°C, not used in interpolation.

b) Alternate value, 18.52°C, not used in interpolation.

OBSERVED			COMP	INTERPOLATED			COMPUTED	
Z	T	S	δ_T	Z	T	S	δ_T	ΔD
m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

SIO

TROLL

USCGC ROGER B. TANEY; April 12, 1955; 0933 GCT; 29°55'N, 136°29'E; sounding, 2350 fm; wind, 170°, force 2; weather, partly cloudy; sea, smooth; wire angle, 03°.

44

0	20.92	34.79	356	0	20.92	34.79	356	0.00
11	20.98	34.81	356	10	20.97	34.81	356	0.04
32	20.43	34.78	344	20	20.83	34.80	354	0.07
59	20.32	34.85	336	30	20.45	34.78	346	0.11
86	19.96	34.84	328	50	20.36	34.83	340	0.17
117	19.67	34.86	320	75	20.13	34.85	334	0.26
171	19.28	34.84	311	100	19.82	34.85	326	0.34
224	19.20a)	34.82	311	150	19.37	34.85	337	0.51
334	17.17	34.73	269	200	19.22	34.83	317	0.67
445	15.16	34.62	334	250	19.09	34.82	315	0.83
555	12.48	34.44	194	300	17.99	34.78	295	0.98
676	9.34	34.26	154	400	16.01	34.67	261	1.26
				500	13.86	34.55	225	1.50
				600	11.28	34.36	192	1.71

USCGC ROGER B. TANEY; April 13, 1955; 0328, 0453 GCT; 33°05'N, 138°09'E; sounding, 2200 fm; wind, 225°, force 4; weather, partly cloudy; sea, slight; wire angle, 15°, 10°.

45

0	17.68	34.64	288	0	17.68	34.64	288	0.00
11	17.55	34.65	284	10	17.56	34.65	284	0.03
31	17.28	34.62	280	20	17.53	34.64	285	0.06
62	16.61	34.64	264	30	17.29	34.62	281	0.09
88	16.31	34.64	257	50	16.87	34.63	272	0.14
124	15.80	34.68	243	75	16.51	34.64	264	0.21
179	14.04	34.55	216	100	16.18	34.65	256	0.27
233	12.32	34.53	184	150	15.03	34.61	255	0.40
343	8.37	34.30	136	200	13.15	34.54	204	0.52
446	6.50	34.26	114	250	11.55	34.53	177	0.61
562	5.24	34.28	97	300	9.55	34.39	153	0.69
683	4.40	34.36	82	400	7.27	34.27	130	0.83
				500	5.85	34.26	112	0.96
610	4.92	34.31	92	600	5.00	34.30	100	1.06
820	3.79	34.42	72	700	4.29	34.37	88	1.16
1015	3.20	34.48	62	800	3.87	34.41	80	1.24
1230	2.77	34.45	60	1000	3.27	34.48	70	1.39
				1200	2.82	34.46	68	1.53

USCGC ROGER B. TANEY; April 13, 1955; 1103 GCT; 34°21.5'N, 138°29'E; sounding, 850 fm; wind, 250°, force 5; weather, partly cloudy; sea, moderate; wire angle, 28°.

46

0	18.07	34.74	290	0	18.07	34.74	290	0.00
10	18.11	34.71	293	10	18.11	34.71	293	0.03
28	17.86	34.81	280	20	18.10	34.77	289	0.06
57	17.73	34.81	277	30	17.86	34.81	281	0.09
81	17.44	34.69	279	50	17.77	34.81	279	0.14
113	16.96	34.83	257	75	17.50	34.70	281	0.21
160	15.84	34.72	241	100	17.31	34.71	278	0.28
205	14.52	34.60	222	150	16.08	34.75	248	0.41
297	10.74	34.49	159	200	14.70	34.61	231	0.53
379	9.08	34.35	143	250	12.25	34.54	192	0.64
470	6.84	34.26	118	300	10.66	34.49	165	0.73
578	5.24	34.27	98	400	8.52	34.31	144	0.88
				500	6.28	34.26	119	1.01
				600	(5.08)	(34.27)	(103)	(1.13)

a) Mean value of 19.16° and 19.23°C.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; October 2, 1955; 1635, 1810 GCT; 29°50'N, 116°55'W; sounding, 770 fm; wind, 270°, force 4; weather, overcast; sea, moderate; wire angle, 12°, 12°.

F-1

0	19.32	33.65	5.51	0.55	399	0	19.32	33.65	5.51	0.55	399	0.00
9	19.30	33.68	5.49	0.53	396	10	19.30	33.68	5.49	0.54	395	0.04
29	19.31	33.68	5.52	0.60	396	20	19.31	33.68	5.51	0.56	396	0.08
51	15.38	33.44	6.25	0.50	324	30	19.31	33.68	5.53	0.60	396	0.12
						50	15.40	33.44	6.25	0.50	325	0.19
65	14.50	33.44	6.22	0.60	306	75	13.24	33.38	5.94	0.64	285	0.27
73	13.36	33.38	5.99	0.63	288	100	11.25	33.41	4.99	1.00	248	0.33
85	12.56	33.39	5.60	0.72	272	150	10.07	33.97	2.18	2.35	187	0.44
109	10.37	33.46	4.48	1.46	230	200	9.79	34.17	1.85	2.41	168	0.53
142	10.14	33.89	2.26	2.12	193	250	9.30	34.24	1.60	2.53	155	0.62
165	10.00	34.00	2.13	2.40	183	300	8.41	34.23	1.58	2.58	142	0.70
222	9.68	34.21	1.64	2.42	163	400	7.33	34.24	0.88	2.85	127	0.83
229	9.58	34.24	1.65	2.49	159	500	6.63	34.30	0.45	2.99	113	0.96
302	8.34	34.23	1.56	2.59	142	600	6.00	34.34	0.27	3.15	102	1.09
408	7.26	34.24	0.81	2.87	126	700	5.40	34.36	0.27	3.36	93	1.19
556	6.24	34.33	0.33	3.08	107	800	4.93	34.39	0.30	3.46	86	1.30
750	5.15	34.37	0.27	3.43	90	1000	4.20	34.46	0.51	3.52	73	1.48
982	4.26	34.46	0.49	3.53	74	1200	3.62	34.51	0.75	3.48	63	1.63
1292	3.38	34.53	0.85	3.44	60							

SPENCER F. BAIRD; October 3, 1955; 0719, 0753 GCT; 27°54'N, 116°47'W; sounding, 1980 fm; wind, 330°, force 3; weather, cloudy; sea, slight; wire angle, 16°, 20°.

F-2

0a)	19.14	33.68	b)	b)	392	0	19.14	33.68		392
-	19.15	33.68	-	-	-	10				
-	18.67	33.63	-	-	-	20				
-	15.78	33.61	-	-	-	30				
-	15.09	33.63	-	-	-	50				
-	14.38	33.60	-	-	-	75				
-	14.03	33.68	-	-	-	100				
-	14.49	33.62	-	-	-	150				
-	13.04	33.67	-	-	-	200				
-	11.37	33.42	-	-	-	250	10.37	34.51		152
-	10.79	34.10	-	-	-	300	9.62	34.49		142
						400	8.24	34.41		126
219	10.82	34.51			159	500	7.12	34.38		113
268	10.09	34.51			147	600	6.17	34.41		99
368	8.68	34.43			132	700	5.39	34.43		88
503	7.08	34.38			113	800	4.92	34.44		82
671	5.66	34.42			91	1000	4.12	34.46		72
893	4.52	34.44			78					
1181	3.63	34.50			64					

a) Apparent pretrip from surface to 219 meters.

b) No chemical analyses attempted.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-3

SPENCER F. BAIRD; October 4, 1955; 0128 GCT; 26°08'N, 116°43'W; sounding, 2085 fm; wind, 335°, force 2; weather, cloudy; sea, slight; wire angle, 17°.

0	20.75	33.71	5.29	0.40	430	0	20.75	33.71	5.29	0.40	430	0.00
14	20.74	33.73	5.21	0.43	429	10	20.74	33.72	5.23	0.40	429	0.04
30	17.59	33.59	5.93	0.44	362	20	20.00	33.71	5.33	0.40	411	0.08
35	17.16	33.51	6.19	0.60	358	30	17.59	33.59	5.93	0.44	362	0.12
42	16.22	33.42	6.20	0.59	344	50	14.58	33.39	6.25	0.81	312	0.19
46	15.40	33.40	6.10	0.61	328	75	12.43	33.40	5.47	1.22	270	0.26
50	14.58	33.39	6.25	0.81	312	100	11.08	33.56	3.95	1.64	233	0.33
104	10.87	33.60	3.58	1.76	227	150	9.84	34.19	1.75	2.65	167	0.43
150	9.84	34.19	1.75	2.65	167	200	9.54	34.40	0.81	2.76	146	0.51
200	9.54	34.40	0.81	2.97	146	250	9.06	34.39	0.74	2.91	140	0.59
230	9.40	34.40	0.74	2.82	144	300	8.32	34.40	0.43	2.97	128	0.66
268	8.70	34.39	0.71	2.96	135	400	7.49	34.40	0.28	3.15	116	0.78
316	8.19	34.41	0.37	2.99	126	500	6.55	34.37	0.27	3.31	106	0.91
376	7.70	34.42	0.28	3.10	118	600	6.02	34.39	0.23	3.38	98	1.01
473	6.72	34.37	0.29	3.28	108	700	5.20	34.42	0.33	3.42	87	1.11
592	6.06	34.39	0.22	3.36	99	800	4.73	34.44	0.38	3.35	80	1.20
696	5.22	34.42	0.32	3.42	87							
836	4.59	34.44	0.40	3.30	78							
3016a)	1.66	34.66	-	-	36							

F-4

SPENCER F. BAIRD; October 4, 1955; 1649 GCT; 24°02'N, 116°31'W; sounding, 2180 fm; wind, 360°, force 1; weather, cloudy; sea, slight; wire angle, 10°.

0	23.21	34.22	4.99	0.42	458	0	23.21	34.22	4.99	0.42	458	0.00
15	23.20	34.23	5.02	0.47	457	10	23.20	34.23	5.01	0.45	457	0.05
24	23.21	34.23	5.03	0.69	457	20	23.21	34.23	5.03	0.60	457	0.09
29	20.14	33.87	5.70	0.50	403	30	20.15	33.87	5.70	0.50	403	0.13
44	19.80	33.91	5.67	0.51	391	50	18.72	33.82	5.76	0.52	372	0.21
58	17.76	33.73	5.83	0.52	356	75	15.44	33.57	5.81	0.67	317	0.30
73	15.66	33.57	5.85	0.65	321	100	12.73	33.59	4.40	1.23	261	0.37
88	13.94	33.55	5.23	0.87	287	150	10.94	34.15	1.69	2.46	187	0.48
107	12.14	33.65	3.91	1.56	246	200	10.50	34.40	0.95	2.82	162	0.58
149	10.96	-	-	2.45	-	250	10.00	34.50	0.78	2.94	146	0.66
240	10.16	34.51	0.76	2.94	148	300	9.10	34.44	1.19	2.83	137	0.73
289	9.22	34.43	1.27	2.80	139	400	7.99	34.44	0.72	3.17	121	0.87
342	8.64	34.48	0.84	3.08	127	500	6.88	34.42	0.80	3.35	107	0.99
413	7.88	34.43	0.71	3.19	120	600	6.13	34.45	0.62	3.36	95	1.10
484	7.07	34.41	0.85	3.34	111	700	5.50	34.45	0.63	3.39	88	1.19
584	6.24	34.45	0.61	3.35	97	800	4.99	34.47	0.46	3.39	81	1.30
730	5.38	34.45	0.61	3.39	87	1000	4.11	34.51	0.59	3.40	68	1.47
871	4.68	34.48	0.40	3.39	77							
1072	3.96	34.52	0.67	3.41	66							

a) Data obtained at this depth with Van Dorn sampler.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m	

SIO

EASTROPIC

SPENCER F. BAIRD; October 5, 1955; 0750 GCT; 22°00'N, 116°23'W; sounding, 2220 fm; wind, 360°, force 1; weather, cloudy; sea, slight; wire angle, 10°.

F-5

0	23.85	34.34	4.94	0.49	467	0	23.85	34.34	4.94	0.49	467	0.00
15	23.88	34.33	5.00	0.44	470	10	23.87	34.33	4.93	0.47	469	0.05
29	22.99	34.24	5.13	0.45	451	20	23.88	34.32	5.00	0.44	470	0.09
34	21.15	34.02	5.55	0.47	418	30	22.97	34.19	5.13	0.44	451	0.14
48	19.92	34.02	5.64	0.46	387	50	19.63	34.01	5.67	0.46	380	0.22
58	18.49	33.80	5.72	0.46	368	75	16.66	33.64	5.78	0.50	338	0.31
68	17.32	33.70	5.78	0.51	348	100	14.70	33.87	3.94	1.41	279	0.39
77	16.44	33.61	5.78	0.52	336	150	11.40	33.95	2.72	2.01	210	0.51
96	15.04	33.87	4.06	1.34	287	200	10.50	34.26	1.52	2.47	172	0.62
128	12.19	33.79	3.44	1.74	237	250	10.01	34.44	0.89	2.74	150	0.70
243	10.04	34.42	0.90	2.72	154	300	9.57	34.51	0.46	2.95	138	0.77
292	9.65	34.51	0.52	2.92	140	400	8.50	34.53	0.18	3.09	121	0.91
343	9.14	34.52	0.27	3.05	132	500	7.43	34.48	0.18	3.29	110	1.04
414	8.33	34.53	0.17	3.11	118	600	6.41	34.47	0.28	3.21	97	1.15
484	7.62	34.48	0.16	3.30	112	700	5.61	34.47	0.29	3.31	87	1.25
582	6.58	34.47	0.27	3.21	99	800	5.14	34.48	0.29	3.40	82	1.35
731	5.46	34.47	0.29	3.34	86	1000	4.38	34.51	0.36	3.43	71	1.52
878	4.76	34.49	0.29	3.44	77							
1075	4.09	34.52	0.43	3.37	68							
2876a)	1.66	34.60	-	-	41							

SPENCER F. BAIRD; October 5, 1955; 2015 GCT; 20°09'N, 116°16'W; sounding, 2130 fm; wind, 010°, force 4; weather, cloudy; sea, slight; wire angle, 18°.

F-6

0	24.52	34.14	4.89	0.24	501	0	24.52	34.14	4.89	0.24	501	0.00
14	24.50	34.14	5.00	0.28	500	10	24.51	34.14	5.00	0.26	501	0.05
23	22.89	34.14	5.30	0.23	456	20	24.43	34.14	5.08	0.27	498	0.10
28	21.66	34.11	5.50	0.24	424	30	21.63	34.11	5.50	0.24	424	0.15
33	21.18	34.13	5.60	0.23	410	50	19.10	33.96	5.82	0.27	372	0.23
38	20.44	34.03	5.65	0.23	398	75	16.47	33.62	5.74	0.30	335	0.31
57	18.48	33.82	5.85	0.28	366	100	13.90	33.76	4.45	1.28	270	0.39
66	17.64	33.72	5.83	0.28	353	150	12.65	34.51	0.50	2.46	191	0.51
85	15.10	33.57	5.51	0.49	308	200	11.77	34.63	0.21	2.66	167	0.62
112	12.96b)	34.01	2.64	1.95	233	250	10.97	34.67	0.24	2.78	150	0.70
234	11.22	34.65	0.16	2.75	155	300	10.11	34.65	0.21	2.82	137	0.77
280	10.44	34.68	0.22	2.82	141	400	8.55	34.53	0.03	2.95	122	0.92
330	9.68	34.60	0.16	2.81	134	500	7.40	34.52	0.17	3.08	106	1.03
398	8.58	34.53	0.03	2.95	123	600	6.44	34.51	0.23	3.15	95	1.14
466	7.76	34.52	0.17	3.05	111	700	5.75	34.52	0.29	3.22	84	1.24
563	6.78	34.51	0.17	3.13	98	800	5.22	34.52	0.22	3.30	79	1.33
703	5.73	34.52	0.29	3.22	85	1000	4.32	34.52	0.41	3.25	70	1.50
839	5.06	34.52	0.22	3.31	77							
1041	4.18	34.52	0.46	3.23	68							

a) Data obtained at this depth with Van Dorn sampler.

b) Temperature inversion of 0.6°C at 120 meters indicated by bathythermograph observation.

SIO EASTROPIC	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P μg at/L	δ _T 10 ⁻⁵ cm/g	Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P μg at/L	δ _T 10 ⁻⁵ cm/g	ΔD dyn m

F-7	SPENCER F. BAIRD; October 6, 1955; 1005 GCT; 17°56'N, 116°12'W; sounding, 2070 fm; wind, 020°, force 3; weather, squalls; sea, slight; wire angle, 10°.												
	0	25.46	34.46	4.72	0.49	505	0	25.46	34.46	4.72	0.49	505	0.00
	14	25.48	34.45	4.81	0.52	506	10	25.47	34.45	4.78	0.51	507	0.05
	28	24.78	34.37	4.93	0.55	493	20	25.44	34.44	4.84	0.53	506	0.10
	38	21.99	34.14	5.45	0.56	432	30	24.30	34.33	5.01	0.55	482	0.15
	47	20.28	33.97	5.62	0.59	398	50	19.66	33.97	5.72	0.60	384	0.24
	57	18.87	33.91	5.79	0.61	368	75	15.20	33.63	5.32	0.72	307	0.32
	66	16.82	33.72	5.70	0.67	335	100	12.98	34.10	0.72	1.89	228	0.39
	76	15.14	33.63	5.30	0.73	306	150	12.13	34.68	0.22	2.78	170	0.49
	95	13.14	33.91	3.15	1.66	245	200	11.33	34.68	0.15	2.86	156	0.58
	147	12.21	34.68	0.22	2.77	172	250	10.45	34.65	0.14	2.87	142	0.66
	238	10.66	34.67	0.12	2.87	145	300	9.74	34.60	0.18	2.84	135	0.73
	285	9.96	34.61	0.19	2.86	138	400	8.63	34.58	0.22	2.98	120	0.86
	335	9.30	34.59	0.10	2.84	129	500	7.33	34.55	0.17	3.18	103	0.99
	407	8.56	34.58	0.23	2.99	118	600	6.47	34.49	0.26	3.19	97	1.10
	477	7.62	34.58	0.10	3.17	104	700	5.75	34.50	0.17	3.29	87	1.19
	574	6.67	34.49	0.28	3.18	99	800	5.17	34.51	0.22	3.38	80	1.28
	718	5.63	34.50	0.16	3.31	86	1000	4.33	34.53	0.45	3.38	69	1.46
	860	4.92	34.51	0.27	3.39	77							
	1064	4.09	34.54	0.53	3.33	66							

F-8	SPENCER F. BAIRD; October 6, 1955; 2126 GCT; 16°31'N, 116°13'W; sounding, 2165 fm; wind, 030°, force 4; weather, cloudy; sea, slight; wire angle, 25°.												
	0	26.90	34.44	4.84		550	0	26.90	34.44	4.84		550	0.00
	14	26.70	34.45	4.90		544	10	26.71	34.45	4.88		544	0.05
	23	26.67	34.44	4.52		543	20	26.69	34.44	4.77		543	0.11
	28	26.66	34.43	4.84		543	30	26.60	34.41	4.86		542	0.16
	34	23.73	34.34	5.45		465	50	20.26	34.13	5.50		387	0.26
	45	20.97	34.19	5.58		400	75	15.36	34.04	3.38		281	0.34
	58	19.29	34.07	5.30		368	100	13.77	34.52	0.64		213	0.40
	66	16.73	33.99	4.51		314	150	12.20	34.68	0.26		172	0.50
	80	14.84	34.09	2.77		266	200	11.28	34.69	0.24		153	0.59
	109	13.39	34.61	0.32		198	250	10.59	34.69	0.18		142	0.66
	235	10.76	34.70	0.22		144	300	9.93	34.66	0.17		134	0.73
	276	10.30	34.67	0.14		138	400	8.57	34.55	0.12		121	0.87
	327	9.53	34.63	0.20		129	500	7.46	34.52	0.26		107	0.99
	393	8.67	34.55	0.12		122	600	6.47	34.50	0.26		96	1.11
	463	7.85	34.54	0.18		111	700	5.76	34.51	0.22		86	1.20
	553	6.90	34.50	0.30		102	800	5.11	34.51	0.39		79	1.29
	689	5.82	34.51	0.23		87	1000	4.30	34.51	0.63		70	1.47
	827	5.02	34.51	0.40		78							
	1034	4.19	34.51	0.66		69							
	2913a)	1.66	-	-		-							

a) Data obtained at this depth with Van Dorn sampler.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; October 7, 1955; 0720, 0758 GCT; 15°03'N, 116°14'W; sounding, 2135 fm; wind, 035°, force 2; weather, partly cloudy; sea, slight; wire angle, 15°, 17°.

F-9

0	27.18	33.92	4.59	0.27	596	0	27.18	33.92	4.59	0.27	596	0.00
14	27.18	33.92	4.65	0.31	596	10	27.18	33.92	4.63	0.30	596	0.06
27	27.03	34.34	4.70	0.31	561	20	27.16	34.00	4.67	0.31	579	0.12
35	25.33	34.39	4.97	0.35	507	30	26.80	34.36	4.74	0.32	553	0.18
						50	21.93	34.33	3.76	0.92	416	0.27
44	23.52	34.35	5.03	0.48	458	75	16.15	34.49	0.98	1.98	264	0.36
52	21.35	34.33	3.23	1.20	400	100	13.63	34.65	0.64	2.34	201	0.41
61	19.62	34.45	1.83	1.83	348	150	11.84	34.72	0.63	2.72	162	0.51
69	17.08	34.45	1.31	1.96	288	200	11.12	34.68	0.41	2.75	152	0.60
87	14.86	34.57	0.64	2.02	231	250	10.40	34.67	0.13	2.82	141	0.67
147	11.89	34.72	0.64	2.72	163	300	9.86	34.63	0.09	2.87	134	0.74
226	10.74	34.67	0.24	2.78	146	400	8.84	34.56	0.10	2.97	124	0.88
272	10.16	34.66	0.08	2.85	137	500	7.60	34.53	0.15	3.07	109	1.00
322	9.66	34.61	0.09	2.89	133	600	6.66	34.49	0.25	3.24	99	1.12
389	8.96	34.56	0.09	2.97	125	700	5.98	34.46	0.32	3.28	92	1.22
457	8.08	34.54	0.16	3.00	114	800	5.33	34.48	0.32	3.31	83	1.31
553	7.10	34.51	0.14	3.17	103	1000	4.36	34.51	0.56	3.34	71	1.49
694	6.02	34.46	0.32	3.28	93							
834	5.18	34.49	0.32	3.31	82							
1020	4.28	34.51	0.57	3.34	71							

SPENCER F. BAIRD; October 7, 1955; 1603 GCT; 14°01'N, 116°13'W; sounding, 2285 fm; wind, 030°, force 4; weather, cloudy; sea, moderate; wire angle, 17°.

F-10

0	27.07	33.70	4.75		609	0	27.07	33.70	4.75		608	0.00
10	27.08	33.69	4.72		610	10	27.08	33.69	4.72		609	0.06
19	26.90	33.77	4.80		598	20	26.75	33.90	4.79		586	0.12
23	24.68	34.29	4.74		495	30	22.55	34.34	4.34		431	0.17
28	22.82	34.34	4.45		439	50	17.02	34.33	1.87		295	0.24
38	20.10	34.35	2.94		367	75	14.61	34.60	0.69		224	0.31
46	17.76	34.33	2.14		312	100	13.10	34.76	0.15		182	0.36
55	16.26	34.35	1.53		277	150	12.03	34.78	0.09		161	0.45
92	13.58	34.74	0.23		193	200	11.33	34.75	0.11		150	0.52
141	12.19	34.78	0.09		164	250	10.83	34.73	0.10		143	0.61
231	11.01	34.74	0.12		146	300	10.22	34.68	0.13		136	0.68
277	10.54	34.72	0.09		139	400	8.89	34.59	0.18		123	0.82
327	9.88	34.65	0.16		133	500	7.77	34.57	0.10		108	0.94
396	8.93	34.59	0.19		124	600	6.72	34.52	0.22		97	1.05
464	8.17	34.58	0.09		113	700	5.94	34.52	0.11		87	1.15
561	7.07	34.53	0.24		101	800	5.32	34.52	0.24		80	1.25
704	5.91	34.52	0.17		88	1000	4.45	34.54	0.52		70	1.41
846	5.10	34.52	0.28		77							
1047	4.25	34.54	0.63		68							

SIO	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
EASTROPIC	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-II

SPENCER F. BAIRD; October 8, 1955; 0001, 0050, 0130 GCT; 13°00'N, 116°11'W; sounding, 2275 fm; wind, 345°, force 1; weather, precipitation within sight; sea, slight; wire angle, 04°, 05°, 05°.

0	27.55	33.86	4.62	0.27	612	0	27.55	33.86	4.62	0.27	611	0.00
15	27.37	33.84	4.48	0.30	607	10	27.43	33.84	4.53	0.29	610	0.06
29	27.22	33.98	4.69	0.29	593	20	27.33	33.86	4.49	0.30	602	0.12
39	26.35	34.02	4.56	0.40	564	30	27.20	33.98	4.69	0.30	592	0.18
48	20.88	34.44	1.41	1.73	381	50	20.15	34.49	1.04	1.85	359	0.28
58	17.52	34.66	0.28	2.21	283	75	14.67	34.72	0.05	2.40	216	0.35
67	15.83	34.71	0.12	2.41	242	100	12.98	34.79	0.13	2.62	178	0.40
						150	12.02	34.79	0.13	2.65	160	0.48
77	14.45	34.72	0.04	2.41	212	200	11.46	34.75	0.22	2.68	153	0.56
96	13.16	34.79	0.13	2.61	182	250	10.87	34.72	0.23	2.76	145	0.64
						300	10.19	34.70	0.09	2.85	134	0.71
148	12.06	34.79	0.13	2.64	161	400	9.08	34.62	0.11	3.02	123	0.85
243	10.98	34.72	0.24	2.74	147	500	7.58	34.54	0.10	3.08	108	0.98
292	10.27	34.71	0.08	2.84	136	600	6.61	34.51	0.12	3.19	97	1.09
343	9.80	34.66	0.19	2.91	132	700	5.87	34.52	0.12	3.27	86	1.18
415	8.82	34.61	0.09	3.04	120	800	5.29	34.53	0.19	3.30	79	1.27
486	7.74	34.55	0.09	3.07	108	1000	4.40	34.52	0.56	3.28	71	1.45
587	6.72	34.51	0.12	3.17	98							
735	5.61	34.53	0.12	3.29	83							
880	4.91	34.52	0.34	3.29	76							
1081	4.00	34.52	0.76	3.28	65							

F-12

SPENCER F. BAIRD; October 8, 1955; 0922 GCT; 12°05'N, 116°09'W; sounding, 2220 fm; wind, 360°, force 3; weather, clear; sea, smooth; wire angle, 02°.

0	27.39	33.73	4.68		617	0	27.39	33.73	4.68		616	0.00
15	27.23	33.75	4.83		610	10	27.26	33.75	4.82		611	0.06
30	27.07	33.78	4.74		603	20	27.18	33.76	4.80		607	0.12
34	26.19	34.05	4.97		557	30	27.07	33.78	4.74		602	0.18
44	20.64	34.42	1.66		376	50	18.70	34.48	1.83		323	0.28
54	17.71	34.53	1.86		297	75	13.60	34.76	0.25		192	0.34
68	14.09	34.74	0.25		203	100	12.87	34.77	0.25		177	0.39
98	12.93	34.77	0.25		178	150	12.10	34.77	0.23		163	0.47
151	12.09	34.77	0.22		163	200	11.27	34.74	0.14		150	0.55
199	11.28	34.74	0.14		151	250	10.60	34.71	0.27		141	0.63
245	10.66	34.72	0.30		142	300	10.04	34.65	0.15		136	0.70
292	10.14	34.65	0.12		138	400	8.84	34.60	0.23		121	0.83
344	9.54	34.65	0.27		127	500	7.55	34.53	0.16		108	0.96
415	8.64	34.59	0.22		119	600	6.60	34.52	0.13		96	1.07
486	7.70	34.54	0.18		108	700	5.89	34.51	0.22		87	1.17
587	6.71	34.52	0.13		97	800	5.29	34.52	0.29		81	1.26
735	5.66	34.51	0.25		85	1000	4.32	34.52	0.67		70	1.44
881	4.89	34.52	0.37		76							
1082	4.03	34.52	0.91		67							

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD	
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m	

SIO

EASTROPIC

SPENCER F. BAIRD; October 8, 1955; 1933, 2015 GCT; 11°02'N, 116°05'W; sounding, 2250 fm; wind, 340°, force 4; weather, squalls; sea, calm; wire angle, 04°, 04°.

F-13

0	27.62	33.76	4.64	0.23	621	0	27.62	33.76	4.64	0.23	621	0.00
15	27.21	33.80	4.60	0.28	606	10	27.24	33.79	4.61	0.27	607	0.06
25	27.11	33.97	4.70	0.27	591	20	27.17	33.88	4.63	0.27	599	0.12
30	27.03	33.96	4.66	0.30	589	30	27.03	33.96	4.66	0.30	589	0.18
39	23.86	34.31	4.97	0.42	470	50	20.35	34.50	0.84	1.79	363	0.28
49	20.64	34.49	0.86	1.71	372	75	14.10	34.78	0.23	2.50	200	0.35
58	18.22	34.60	0.91	2.15	304	100	12.70	34.80	0.14	2.54	172	0.39
68	15.20	34.75	0.19	2.46	224	150	11.68	34.78	0.25	2.58	154	0.48
96	12.86	34.80	0.14	2.52	175	200	11.10	34.74	0.37	2.61	147	0.55
148	11.72	34.79	0.23	2.58	155	250	10.54	34.72	0.38	2.65	139	0.63
242	10.62	34.72	0.39	2.65	141	300	10.07	34.72	0.27	2.74	132	0.70
291	10.14	34.73	0.28	2.72	133	400	9.02	34.64	0.07	2.88	121	0.83
343	9.66	34.69	0.15	2.82	127	500	7.76	34.56	0.17	2.97	108	0.96
414	8.82	34.63	0.05	2.90	118	600	6.84	34.60	0.32	3.23	93	1.07
487	7.88	34.56	0.14	2.96	110	700	6.02	34.54	0.13	3.33	87	1.16
						800	5.32	34.54	0.19	3.29	78	1.25
587	6.99	34.60	0.32	3.20	95	1000	4.40	34.56	0.58	3.26	67	1.42
735	5.72	34.53	0.11	3.33	84							
879	4.96	34.55	0.37	3.25	74							
1082	4.05	34.58	0.76	3.29	63							
2842a)	1.72	-	-	-	-							

SPENCER F. BAIRD; October 8, 1955; 0459 GCT; 10°01'N, 115°55'W; sounding, 2230 fm; wind, 270°, force 1; weather, cloudy; sea, smooth; wire angle, 12°.

F-14

0	27.40	33.46	4.75		636	0	27.40	33.46	4.75		635	0.00
20	26.94	33.49	4.78		619	10	27.13	33.47	4.76		627	0.06
36	26.76	33.91	4.95		584	20	26.94	33.49	4.78		619	0.13
44	26.12	34.52	4.82		521	30	26.83	33.54	4.92		613	0.19
49	24.76	34.52	4.56		480	50	24.25	34.53	4.43		466	0.30
54	21.72	34.63	3.91		388	75	15.65	34.66	1.08		241	0.38
58	18.90	34.57	3.48		322	100	12.82	34.78	0.21		175	0.44
67	16.80	34.61	1.99		270	150	11.83	34.77	0.23		158	0.52
87	13.92	34.76	0.23		197	200	11.18	34.74	0.27		148	0.61
112	12.45	34.79	0.20		167	250	10.54	34.72	0.23		139	0.68
235	10.70	34.72	0.27		143	300	10.03	34.72	0.11		131	0.74
282	10.22	34.72	0.07		134	400	9.25	34.62	0.01		126	0.88
332	9.75	34.69	0.16		128	500	7.91	34.56	0.21		110	1.00
401	9.24	34.62	0.00		126	600	6.73	34.52	0.38		97	1.12
469	8.29	34.58	0.13		115	700	5.99	34.51	0.35		89	1.22
566	7.09	34.53	0.39		102	800	5.37	34.51	0.58		82	1.32
712	5.91	34.51	0.35		87	1000	4.42	34.54	1.00		69	1.50
854	5.05	34.51	0.74		77							
1052	4.18	34.55	1.08		66							

a) Data obtained at this depth with Van Dorn sampler.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-15

SPENCER F. BAIRD; October 9, 1955; 1223 GCT; 9°06'N, 115°44'W; sounding, 2200 fm; wind, 235°, force 1; weather, intermittent slight drizzle; sea, slight; wire angle, 34°.

0	26.72	33.15	4.69	0.22	657	0	26.72	33.15	4.69	0.22	637	0.00
25	26.82	33.59	4.79	0.25	608	10	26.78	33.33	4.73	0.22	626	0.06
46	26.78	34.09	4.74	0.27	572	20	26.81	33.50	4.77	0.23	615	0.13
50	26.82	34.15	4.80	0.28	568	30	26.81	33.71	4.79	0.25	600	0.19
54	26.86	34.23	4.75	0.32	564	50	26.82	34.15	4.80	0.28	569	0.30
58	26.28	34.41	4.55	0.33	533	75	19.25	34.62	2.99	1.26	327	0.41
62	24.60	34.49	4.30	0.45	478	100	13.90	34.76	0.43	2.33	198	0.48
66	23.41	34.61	4.15	0.60	436	150	11.97	34.78	0.41	2.57	160	0.57
73	20.18	34.62	3.36	1.07	350	200	11.04	34.76	0.50	2.54	145	0.66
120	12.88	34.78	0.40	2.50	177	250	10.50	34.72	0.73	2.51	138	0.73
195	11.10	34.76	0.48	2.55	165	300	10.03	34.70	0.57	2.66	132	0.79
231	10.68	34.75	0.70	2.50	139	400	9.10	34.66	0.24	2.82	121	0.93
274	10.22	34.70	0.76	2.59	135	500	7.89	34.61	0.17	3.01	106	1.05
330	9.78	34.70	0.36	2.72	128	600	6.83	34.54	0.26	3.03	97	1.17
386	9.27	34.67	0.27	2.79	123	700	6.11	34.52	0.63	3.08	90	1.27
464	8.32	34.63	0.17	2.99	112	800	5.67	34.53	0.62	3.14	83	1.36
580	7.00	34.56	0.20	-	97	1000						(1.55)
702	6.08	34.52	0.63	3.08	89							
958	5.13	34.56	0.61	3.25	75							

F-16

SPENCER F. BAIRD; October 9, 1955; 2131 GCT; 8°00'N, 115°37'W; sounding, 2250 fm; wind, 240°, force 3; weather, cloudy; sea, slight; wire angle, 23°.

0	26.69	33.65	4.70		600	0	26.69	33.65	4.70		600	0.00
32	26.44	33.67	4.74		591	10	26.61	33.65	4.73		598	0.06
64	26.66	34.36	4.37		549	20	26.52	33.66	4.74		594	0.12
82	25.64	34.51	4.49		507	30	26.45	33.67	4.74		591	0.18
87	22.74	34.67	4.30		413	50	26.49	34.06	4.65		565	0.29
90	20.69	34.69	3.65		358	75	26.61	34.40	4.37		544	0.43
104	17.48	34.66	2.45		283	100	18.07	34.66	2.70		295	0.54
112	15.69	34.68	1.13		240	150	12.36	34.71	1.18		172	0.66
128	13.86	34.76	0.60		197	200	11.11	34.75	1.00		147	0.74
156	12.12	34.70	1.21		168	250	10.56	34.76	0.92		136	0.82
254	10.50	34.76	0.90		136	300	10.16	34.74	0.89		131	0.88
305	10.12	34.74	0.88		131	400	9.49	34.68	0.42		124	1.03
358	9.84	34.73	0.56		127	500	8.26	34.61	0.13		112	1.16
433	9.12	34.65	0.29		112	600	6.97	34.57	0.18		97	1.26
509	8.12	34.61	0.12		110	700	6.22	34.55	0.27		89	1.36
604	6.90	34.57	0.19		96	800	5.63	34.54	0.41		82	1.46
757	5.89	34.54	0.34		85	1000	4.58	34.56	0.91		69	1.64
914	5.00	34.54	0.62		75							
1122	4.02	34.58	1.55		63							

F-17

SPENCER F. BAIRD; October 10, 1955; 0547 GCT; 7°02'N, 115°40'W; sounding, 2000+ fm; wind, 190°, force 2; weather, cloudy; sea, slight; wire angle, 30°.

0	26.45	34.40	4.61	0.19	539	0	26.45	34.40	4.61	0.19	539	0.00
47	26.37	34.42	4.69	0.33	535	10	26.39	34.42	4.63	0.30	536	0.05
88	26.28	34.43	4.61	0.14	532	20	26.38	34.42	4.64	0.31	535	0.11
105	24.16	34.61	4.03	0.46	457	30	26.38	34.42	4.66	0.31	535	0.16
108	22.92	34.65	3.83	0.62	418	50	26.37	34.42	4.69	0.32	534	0.27
112	21.90	34.68	3.56	0.65	390	75	26.34	34.42	4.64	0.32	533	0.40
119	19.60	34.67	2.52	1.23	333	100	25.70	34.50	4.47	0.23	509	0.53
124	17.28	34.64	1.61	1.57	278	150	13.24	34.78	0.53	2.22	183	0.71
132	15.84	34.69	0.98	1.96	243	200	11.80	34.76	0.81	2.25	158	0.80
146	13.54	34.78	0.52	2.22	189	250	11.21	34.75	0.83	2.26	148	0.88
237	11.32	34.76	0.84	2.26	150	300	10.72	34.72	0.67	2.32	142	0.96
286	10.86	34.72	0.75	2.30	144	400	9.47	34.67	0.38	2.71	126	1.09
332	10.32	34.72	0.48	2.48	136	500	8.09	34.61	0.17	2.83	109	1.23
396	9.50	34.67	0.38	2.71	126	600	6.99	34.61	0.41	3.00	94	1.34
470	8.42	34.61	0.13	2.78	114	700	6.09	34.60	0.56	3.06	83	1.43
560	7.39	34.61	0.28	2.97	99	800	5.43	34.53	0.63	3.08	81	1.52
699	6.10	34.60	0.55	-	83	1000	4.49	34.53	0.80	3.07	70	1.70
840	5.16	34.52	0.66	3.09	78							
1047	4.28	34.54	0.84	3.06	68							

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OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; October 10, 1955; 1524 GCT; 5°58'N, 115°43'W; sounding, 2300 fm; wind, 175°, force 4; weather, overcast; sea, moderate; wire angle, 31°.

F-18

0	25.89	34.56	4.89	0.16	511	0	25.89	34.56	4.89	0.16	510	0.00
43	25.90	34.56	4.79	0.20	511	10	25.89	34.56	4.87	0.17	510	0.05
68	25.89	34.59	4.71	0.26	508	20	25.89	34.56	4.84	0.18	510	0.10
101	24.80	34.69	4.16	0.49	470	30	25.90	34.56	4.82	0.19	511	0.15
109	23.38	34.68	4.12	0.66	430	50	25.90	34.57	4.77	0.22	510	0.26
120	20.24	34.74	2.87	1.14	342	75	25.89	34.59	4.60	0.27	509	0.38
129	17.88	34.68	1.68	1.60	290	100	24.98	34.68	4.17	0.46	474	0.51
141	14.48	34.73	0.62	2.15	212	150	13.57	34.79	0.60	2.30	189	0.68
149	13.62	34.79	0.60	2.29	190	200	11.45	34.75	0.74	2.31	153	0.77
197	11.54	34.75	0.70	2.30	155	250	10.37	34.71	1.46	2.32	137	0.84
244	10.45	34.71	1.52	2.33	138	300	9.98	34.70	1.35	2.31	131	0.91
289	10.04	34.71	1.37	2.32	132	400	9.25	34.67	1.04	2.59	122	1.04
338	9.69	34.69	1.27	2.31	127	500	8.33	34.62	0.53	2.94	112	1.18
401	9.24	34.67	1.05	2.59	123	600	7.25	34.58	0.32	2.87	100	1.29
478	8.56	34.63	0.70	2.94	115	700	6.32	34.53	0.53	3.00	91	1.39
568	7.60	34.60	0.30	3.00	103	800	5.68	34.54	0.77	3.07	83	1.49
712	6.21	34.53	0.56	3.01	90	1000	4.72	34.54	1.25	3.04	72	1.67
772	5.83	34.54	0.71	3.06	84							
1056	4.45	34.54	1.38	3.03	70							

SPENCER F. BAIRD; October 11, 1955; 0233, 0250, 0305 GCT; 5°00'N, 115°36'W; sounding, 2280 fm; wind, 180°, force 2; weather, squalls; sea, moderate; wire angle, 20°, 20°, 20°.

F-19

0	23.91	34.30	4.77	0.43	473	0	23.91	34.30	4.77	0.43	472	0.00
						10	23.91	34.30	4.78	0.43	472	0.05
47	23.92	34.30	4.82	0.45	473	20	23.91	34.30	4.79	0.43	472	0.09
						30	23.92	34.30	4.80	0.44	473	0.14
87	23.90	34.31	4.81	0.48	472	50	23.92	34.30	4.82	0.45	473	0.24
109	22.76	34.48	4.63	0.68	426	75	23.91	34.31	4.81	0.47	471	0.35
118	21.51	34.67	4.44	0.95	380	100	23.72	34.33	4.77	0.49	465	0.47
131	19.08	34.78	3.00	1.40	311	150	15.90	34.90	1.91	1.70	228	0.64
139	17.90	34.85	2.31	1.59	278	200	11.69	34.75	0.82	2.34	157	0.75
151	15.79	34.90	1.89	1.72	226	250	10.94	34.78	0.92	2.20	142	0.83
159	13.30	34.74	1.44	2.01	187	300	10.25	34.74	1.05	2.43	133	0.89
189	11.86	34.74	0.82	2.35	160	400	9.42	34.68	1.06	2.56	123	1.03
258	10.82	34.78	0.94	2.14	140	500	8.41	34.67	0.42	2.79	109	1.16
308	10.14	34.74	1.06	2.45	132	600	7.36	34.61	0.42	3.02	99	1.27
357	9.70	34.74	1.13	2.50	124	700	6.42	34.56	0.52	3.14	90	1.38
424	9.25	34.67	0.98	2.60	122	800	5.60	34.55	0.66	3.15	81	1.48
502	8.34	34.67	0.38	2.81	108	1000	4.60	34.56	1.20	2.97	69	1.65
601	7.34	34.61	0.42	3.02	98							
753	5.94	34.54	0.59	3.16	86							
861	5.14	34.56	0.82	3.11	75							
1052	4.49	34.56	1.27	2.93	68							
2807a)	1.80	34.67	-	-	36							

a) Data obtained at this depth with Van Dorn sampler.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-20

SPENCER F. BAIRD; October 11, 1955; 1230 GCT; 4°04'N, 115°35'W; sounding, 2255 fm; wind, 175°, force 4; weather, cloudy; sea, rough; wire angle, 22°.

0	23.52	34.30	4.88	0.43	462	0	23.52	34.30	4.88	0.43	462	0.00
56	23.24	34.33	5.00	0.45	452	10	23.51	34.30	4.90	0.43	461	0.05
87	22.29	34.40	4.68	0.57	420	20	23.49	34.31	4.93	0.43	460	0.09
110	20.95	34.63	4.77	0.81	369	30	23.44	34.31	4.95	0.44	458	0.14
119	20.78	34.63	4.49	0.90	365	50	23.30	34.32	4.99	0.45	453	0.23
132	14.04	34.96	1.59	1.60	186	75	22.74	34.36	4.87	0.51	435	0.34
136	13.94	34.96	1.44	1.68	184	100	21.43	34.58	4.75	0.68	384	0.44
140	13.88	34.95	1.50	1.73	184	150	13.82	34.93	1.49	1.75	184	0.58
161	13.76	34.92	1.48	1.78	183	200	13.17	34.92	1.36	2.01	171	0.68
213	12.93	34.93	1.25	2.05	167	250	12.43	34.89	0.98	1.75	160	0.77
265	12.24	34.88	0.91	1.68	157	300	11.67	34.85	1.17	1.65	149	0.84
319	11.30	34.83	1.36	1.66	144	400	9.97	34.72	0.83	1.95	129	0.99
373	10.34	34.74	1.14	1.83	134	500	8.44	34.64	0.46	2.30	112	1.13
445	9.32	34.69	0.57	2.15	122	600	7.18	34.56	0.56	2.67	100	1.24
530	7.98	34.61	0.43	2.41	108	700	6.29	34.51	0.92	2.71	92	1.34
637	6.81	34.54	0.65	2.72	97	800	5.48	34.47	1.24	2.60	86	1.44
803	5.45	34.47	1.25	2.59	86	1000	4.47	34.57	1.41	2.54	67	1.62
962	4.60	34.56	1.36	2.52	70							
1171	3.94	34.60	1.63	2.86	60							

F-21

SPENCER F. BAIRD; October 11, 1955; 2050 GCT; 3°05'N, 115°44'W; sounding, 2180 fm; wind, 175°, force 2; weather, precipitation within sight; sea, moderate; wire angle, 00°.

0	23.61	34.33	4.87	0.42	462	0	23.61	34.33	4.87	0.42	462	0.00
25	23.53	34.31	4.80	0.45	461	10	23.57	34.32	4.84	0.43	462	0.05
54	23.27	34.34	4.74	0.52	452	20	23.53	34.31	4.81	0.45	461	0.09
68	22.52	34.36	4.59	0.66	430	30	23.52	34.31	4.79	0.45	460	0.14
78	21.92	34.43	4.43	0.76	407	50	23.38	34.33	4.76	0.49	456	0.23
87	19.48	34.67	3.82	1.14	329	75	22.17	34.40	4.50	0.72	417	0.34
101	18.35	34.82	3.54	1.24	291	100	18.50	34.80	3.58	1.23	296	0.43
109	16.65	34.92	2.82	1.34	244	150	13.66	34.94	1.48	1.93	180	0.55
119	15.16	34.96	1.63	1.78	209	200	12.95	34.91	1.19	2.07	168	0.64
155	13.54	34.94	1.48	1.96	177	250	12.37	34.89	0.80	2.19	159	0.73
264	12.20	34.88	0.73	2.22	157	300	11.61	34.86	0.84	2.29	147	0.80
308	11.44	34.85	0.88	2.30	145	400	9.88	34.71	1.35	2.41	129	0.95
365	10.46	34.74	1.68	2.18	136	500	8.27	34.66	0.39	2.78	108	1.08
440	9.24	34.69	0.84	2.65	121	600	6.81	34.62	0.87	2.85	91	1.19
519	7.94	34.65	0.32	2.81	103	700	5.93	34.56	1.70	2.76	84	1.29
622	6.50	34.62	1.10	2.84	87	800	5.43	34.53	1.84	2.75	81	1.39
774	5.59	34.53	1.86	2.73	83	1000	4.54	34.57	1.55	2.98	68	1.55
924	4.87	34.56	1.55	2.94	73							
1130	3.98	34.59	1.62	2.95	62							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; October 12, 1955; 0522, 0626, missing GCT; 2°00'N, 115°41'W; sounding, 2190 fm;
wind, 165°, force 4; weather, cloudy; sea, rough; wire angle, 07°, 06°, missing.

F-22

0	24.03	34.30	4.99	0.41	476	0	24.03	34.30	4.99	0.41	475	0.00
						10	24.03	34.30	5.03	0.41	475	0.05
25	24.02	34.31	5.09	0.50	474	20	24.02	34.31	5.08	0.41	474	0.09
49	21.43	34.48	4.61	-	392	30	23.99	34.32	5.08	0.51	473	0.14
58	20.70	34.60	4.53	1.05	364	50	21.40	34.49	4.60	0.94	390	0.23
81	15.34	34.96	2.46	1.77	213	75	16.97	34.90	3.30	1.62	252	0.31
85	14.92	34.97	2.35	1.78	208	100	14.17	34.96	1.56	2.07	189	0.36
90	14.54	34.95	1.78	2.00	197	150	13.46	34.94	1.76	1.97	176	0.46
103	14.10	34.96	1.55	2.08	187	200	12.85	34.94	1.17	2.16	164	0.54
134	13.66	34.95	1.89	1.94	179	250	12.21	34.91	0.81	2.28	154	0.63
222	12.59	34.93	0.96	2.22	160	300	11.40	34.84	0.78	2.38	145	0.70
277	11.80	34.88	0.77	2.32	149	400	9.32	34.68	0.72	2.58	122	0.84
334	10.76	34.78	0.81	2.44	138	500	7.62	34.61	0.64	2.75	103	0.97
390	9.50	34.70	0.77	2.57	123	600	6.39	34.57	1.51	2.89	89	1.08
466	8.24	34.61	0.56	2.66	112	700	5.79	34.56	1.83	2.86	82	1.17
554	6.77	34.60	1.03	2.87	92	800	5.37	34.57	1.88	2.65	77	1.26
						1000	4.43	34.60	1.95	2.73	64	1.41
658	6.02	34.56	1.80	2.89	86							
824	5.30	34.57	1.88	2.64	77							
984	4.48	34.60	1.95	-	66							
1174	3.63	34.61	1.94	2.80	57							

SPENCER F. BAIRD; October 12, 1955; 1630, 1700, 1715 GCT; 0°58'N, 116°03'W; sounding, 2130 fm;
wind, 145°, force 2; weather, cloudy; sea, moderate; wire angle, 15°, 03°, 00°.

F-23

0	23.01	34.31	4.81	0.63	447	0	23.01	34.31	4.81	0.63	447	0.00
						10	23.03	34.32	4.80	0.60	447	0.04
15	23.05	34.32	4.79	0.59	448	20	23.03	34.31	4.75	0.60	447	0.09
						30	22.88	34.30	4.66	0.57	443	0.13
29	22.94	34.30	4.66	0.56	446	50	19.13	34.67	3.88	1.14	321	0.21
33	22.63	34.34	4.65	0.63	433	75	14.36	34.93	2.03	1.64	194	0.27
42	20.60	34.52	4.22	0.96	368	100	13.73	34.93	1.69	1.79	182	0.32
47	19.60	34.61	4.02	1.08	335	150	13.09	34.90	1.43	1.97	172	0.41
52	18.96	34.69	3.83	1.15	314	200	12.58	34.87	1.38	2.06	164	0.49
56	17.30	34.83	3.08	1.29	265	250	12.21	34.85	1.26	2.14	159	0.58
91	13.88	34.94	1.80	1.76	185	300	11.91	34.84	1.01	2.23	153	0.66
148	13.12	34.90	1.44	1.97	173	400	9.05	34.65	0.87	2.66	121	0.80
242	12.26	-	1.30	2.13	-	500	7.69	34.61	0.99	2.65	103	0.92
286	12.10	34.85	1.10	2.18	157	600	6.50	34.56	1.53	2.75	91	1.03
338	10.77	34.78	0.66	2.48	138	700	5.89	34.56	1.69	2.77	83	1.13
407	8.89	34.65	0.88a)	2.66	118	800	5.29	34.53	1.81	2.82	79	1.22
479	7.98	34.63	0.93	2.62	106	1000	4.23	34.56	1.75	2.83	66	1.38
570	6.73	34.56	1.41	2.74	94							
712	5.82	34.56	1.70	2.77	87							
859	4.96	34.52	1.82	2.84	77							
1046	4.02	34.58	1.72	2.81	64							

a) Alternate value, 0.94 ml/L.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	dyn m

F-24

SPENCER F. BAIRD; October 13, 1955; 0741, 0847, 1117, missing GCT; 0°04'N, 115°39'W; sounding, 2150 fm; wind, 110°, force 2; weather, cloudy; sea, smooth; wire angle, 05°, 05°, 05°, missing.

0	20.97	34.57	4.86	-	373	0	20.97	34.57	4.86		373	0.00
10	21.02	34.58	4.88	-	374	10	21.02	34.58	4.88		374	0.04
23	20.65	34.63	4.85	0.60	362	20	20.87	34.61	4.86		368	0.07
42	17.96	34.76	3.57	1.09	285	30	19.56	34.69	4.43	0.79	328	0.11
51	16.67	34.78	3.14	1.27	255	50	16.77	34.78	3.18	1.26	257	0.17
60	15.81	34.81	2.87	1.39	233	75	15.00	34.84	2.86	1.74	214	0.23
70	15.40	34.81	2.83	1.73	225	100	13.02	34.88	2.83	1.55	172	0.28
88	13.95	34.88	3.05	1.64	190	150	12.95	34.89	2.77	1.56	170	0.36
112	12.99	34.88	2.78	1.56	171	200	12.66	34.88	2.32	1.70	165	0.44
						250	12.09	34.88	1.55	2.11	154	0.53
152	12.94	34.89	2.83	1.55	169	300	12.01	34.88	1.43	2.15	152	0.61
256	12.07	34.88	1.53	2.15	154	400	9.74	34.69	0.68	2.72	128	0.75
303	12.00	34.88	1.42	2.15	153	500	8.00	34.59	0.78	2.68	109	0.89
362	10.56	34.73	0.71	2.58	138	600	6.73	34.60	1.49	2.72	92	0.99
440	8.98	34.65	0.50	2.76	119	700	5.83	34.56	1.70	2.79	83	1.08
523	7.65	34.59	0.95	2.67	104	800	5.27	34.54	1.86	2.81	78	1.19
629	6.41	34.60	1.59	2.75	87	1000	4.48	34.52	2.10	2.83	71	1.35
781	5.36	34.55	1.83	2.81	78	1200	3.83	34.53			64	1.51
936	4.74	34.52	2.06	2.81	74	1500	3.17	34.59			53	1.71
1145	4.00	34.52	2.11	2.88	67	2000	2.30	34.63			43	2.01
						2500	1.86	34.63			40	2.26
695	6.02	34.56	-	-	86	3000	1.65	34.64			37	2.51
1115	4.06	34.52	-	2.67	67							
1396	3.38	34.55	-	2.66	58							
1847	2.48	34.63	-	2.61	45							
2773	1.74	34.63	-	2.43	39							
3746	1.44	34.67	-	2.31	34							

2233a) 2.02 - - - -

F-25

SPENCER F. BAIRD; October 17, 1955; 2253 GCT; 6°22'N, 115°24'W; sounding, 2200 fm; wind, 175°, force 4; weather, overcast; sea, rough; wire angle, 25°.

0	25.85	34.52			512	0	25.85	34.52			512	0.00
56	25.88	34.58			508	10	25.86	34.53			511	0.05
110	22.68	34.63			413	20	25.86	34.54			511	0.11
119	18.10	34.65			297	30	25.87	34.56			510	0.15
127	15.68	34.68			240	50	25.88	34.57			509	0.26
136	14.50	34.72			212	75	25.88	34.60			507	0.38
149	12.99	34.75			181	100	24.80	34.62			475	0.50
163	12.36	34.74			168	150	12.95	34.75			180	0.67
188	11.60	34.74			156	200	11.32	34.72			152	0.76
212	11.04	34.70			148	250	10.35	34.67			139	0.83
262	10.14	34.67			137	300	9.77	34.65			131	0.90
313	9.67	34.65			130	400	8.92	34.62			121	1.04
364	9.28	34.63			125	500	8.01	34.54			113	1.17
435	8.58	34.60			118	600	6.91	34.54			98	1.28
520	7.82	34.54			110	700	6.05	34.51			89	1.39
621	6.66	34.54			94	800	5.39	34.50			82	1.49
776	5.54	34.50			83	1000	4.42	34.51			71	1.66
932	4.72	34.51			75							
1145	3.91	34.52			65							

a) Data obtained at this depth with Van Dorn sampler.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m	

S10

EASTROPIC

SPENCER F. BAIRD; October 18, 1955; 0705 GCT; 7°03'N, 115°31'W; sounding, 2190 fm; wind, 185°, force 4; weather, overcast; sea, rough; wire angle, 22°.

F-26

0	26.05	34.60			512	0	26.05	34.60			512	0.00
46	26.09	34.53			518	10	26.06	34.58			513	0.05
88	25.16	34.60			485	20	26.07	34.57			515	0.10
101	23.23	34.68			424	30	26.08	34.55			517	0.15
111	19.47	34.65			329	50	26.09	34.53			518	0.26
121	15.84	34.65			245	75	25.95	34.53			513	0.39
134	14.18	34.78			202	100	23.23	34.68			424	0.50
147	13.17	34.78			182	150	12.96	34.77			179	0.67
165	12.28	34.72			169	200	11.37	34.76			150	0.75
195	11.51	34.76			152	250	10.62	34.71			141	0.82
268	10.42	34.70			138	300	10.17	34.68			135	0.89
321	10.02	34.67			133	400	9.06	34.61			124	1.04
375	9.38	34.64			126	500	7.92	34.54			112	1.17
447	8.48	34.56			119	600	6.77	34.57			94	1.27
533	7.54	34.54			106	700	5.93	34.56			84	1.37
636	6.44	34.58			89	800	5.28	34.54			78	1.46
792	5.31	34.54			78	1000	4.36	34.54			69	1.64
943	4.61	34.54			71							
1156	3.84	34.51			65							

SPENCER F. BAIRD; October 18, 1955; 1555 GCT; 8°02'N, 115°40'W; sounding, 2050 fm; wind, 320°, force 3; weather, continuous moderate drizzle; sea, rough; wire angle, 10°.

F-27

0	26.25	33.52			596	0	26.25	33.52			596	0.00
49	26.58	34.36			545	10	26.29	33.80			577	0.06
78	21.39	34.51			388	20	26.31	33.88			572	0.12
94	15.91	34.57			254	30	26.36	34.06			561	0.17
98	14.90	34.67			224	50	26.58	34.36			545	0.28
108	13.76	34.70			199	75	23.09	34.51			434	0.41
117	13.02	34.74			182	100	14.70	34.68			220	0.49
125	12.75	34.77			175	150	12.12	34.72			167	0.58
171	11.46	34.66			160	200	10.95	34.67			150	0.67
216	10.76	34.67			146	250	10.51	34.66			143	0.75
277	10.30	34.65			140	300	10.06	34.64			137	0.82
332	9.76	34.63			132	400	9.29	34.64			125	0.96
387	9.40	34.64			126	500	8.06	34.54			114	1.09
463	8.58	34.61			117	600	6.89	34.52			99	1.20
552	7.38	34.49			108	700	6.06	34.53			88	1.31
657	6.38	34.54			91	800	5.38	34.49			83	1.41
819	5.28	34.49			82	1000	4.29	34.51			70	1.58
980	4.39	34.51			71							
1197	3.69	34.52			63							

SPENCER F. BAIRD; October 19, 1955; 0038 GCT; 9°03'N, 115°48'W; sounding, 1990 fm; wind, 290°, force 3; weather, cloudy; sea, slight; wire angle, 12°.

F-28

0	26.71	a)				0	26.71					
20	26.94					10	26.89					
44	25.83					20	26.94					
54	22.83					30	26.91					
59	19.88					50	23.61					
63	18.33					75	15.59					
68	16.57					100	12.95					
78	15.20					150	11.63					
106	12.62					200	10.83					
158	11.50					250	10.23					
265	10.10					300	9.82					
312	9.72					400	8.99					
370	9.26					500	7.92					
447	8.54					600	6.88					
528	7.58					700	6.06					
633	6.58					800	5.41					
790	5.44											
943	4.61											

301

a) Salinity samples rejected; not in order and one missing.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

F-29

SPENCER F. BAIRD; October 19, 1955; 0038 GCT; 9°58'N, 115°58'W; sounding, 2200 fm; wind, 170°, force 2; weather, cloudy; sea, smooth; wire angle, 02°.

0	27.08	33.41			630	0	27.08	33.41			630	0.00
15	27.08	33.40			629	10	27.08	33.40			629	0.06
35	26.91	33.84			593	20	27.07	33.50			622	0.13
45	23.29	34.58			434	30	26.99	33.70			605	0.18
50	20.95	34.60			370	50	20.95	34.60			370	0.27
55	18.64	34.60			313	75	14.85	34.73			219	0.34
65	15.74	34.60			248	100	13.09	34.79			180	0.39
74	14.90	34.72			221	150	11.79	34.79			156	0.48
98	13.11	34.79			180	200	11.08	34.77			144	0.55
171	11.48	34.79			150	250	10.54	34.73			138	0.63
269	10.32	34.71			136	300	10.03	34.69			133	0.70
315	9.87	34.69			130	400	8.89	34.67			116	0.84
373	9.22	34.69			120	500	7.58	34.58			104	0.96
450	8.29	34.61			112	600	6.51	34.54			93	1.06
532	7.18	34.56			100	700	5.80	34.52			86	1.16
638	6.20	34.54			89	800	5.31	34.51			81	1.25
797	5.31	34.51			81	1000	4.44	34.52			70	1.42
951	4.62	34.52			72							
1160	3.85	34.52			65							

F-30

SPENCER F. BAIRD; October 19, 1955; 1615 GCT; 10°58'N, 115°58'W; sounding, 2290 fm; wind, calm; weather, cloudy; sea, calm; wire angle, 08°.

0	27.30	33.47			631	0	27.30	33.47			631	0.00
15	27.26	33.46			630	10	27.28	33.46			630	0.06
30	24.53	34.23			494	20	27.25	33.46			629	0.13
40	22.60	34.36			431	30	24.53	34.23			494	0.18
49	18.82	34.56			320	50	18.65	34.56			316	0.26
59	17.45	34.59			285	75	14.03	34.70			204	0.33
68	14.50	34.69			215	100	12.83	34.76			177	0.38
78	13.80	34.71			199	150	11.84	34.79			157	0.46
87	13.18	34.74			185	200	11.18	34.73			149	0.54
150	11.84	34.79			157	250	10.62	34.70			142	0.62
242	10.72	34.70			143	300	10.09	34.69			134	0.69
290	10.20	34.69			136	400	8.98	34.62			121	0.83
342	9.64	34.67			128	500	7.69	34.54			108	0.95
412	8.82	34.61			120	600	6.68	34.58			92	1.06
484	7.86	34.53			112	700	5.86	34.53			85	1.15
583	6.83	34.58			93	800	5.19	34.54			77	1.24
730	5.61	34.53			82	1000	4.30	34.55			67	1.41
872	4.81	34.55			72							
1071	4.06	34.54			65							

F-31

SPENCER F. BAIRD; October 19, 1955; 2229 GCT; 11°41'N, 115°59'W; sounding, 2335 fm; wind, direction missing, force 2; weather, cloudy; sea, calm; wire angle, 08°.

0	27.49	33.64			625	0	27.49	33.64			625	0.00
15	27.32	33.66			618	10	27.38	33.65			621	0.06
29	27.27	33.66			617	20	27.29	33.66			617	0.12
39	24.32	34.28			484	30	27.27	33.66			617	0.19
49	19.84	34.54			346	50	19.82	34.54			346	0.28
59	17.57	34.61			287	75	14.20	34.76			203	0.35
68	15.18	34.72			226	100	12.97	34.80			177	0.40
77	14.04	34.76			201	150	11.98	34.79			159	0.48
96	13.04	34.80			178	200	11.15	34.75			147	0.56
148	12.01	34.79			160	250	10.43	34.69			139	0.64
241	10.53	34.70			141	300	9.91	34.64			135	0.71
288	10.01	34.65			135	400	8.82	34.58			122	0.84
339	9.52	34.61			130	500	7.58	34.53			108	0.97
411	8.68	34.58			120	600	6.68	34.49			99	1.08
480	7.74	34.54			109	700	5.93	34.52			87	1.18
581	6.85	34.49			101	800	5.34	34.50			82	1.28
729	5.73	34.52			85	1000	4.41	34.50			72	1.46
870	4.98	34.48			79							
1072	4.16	34.50			69							

302

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m	

SIO

EASTROPIC

SPENCER F. BAIRD; October 26, 1955; 2255 GCT; 9°35'N, 108°18'W; sounding, 1825 fm; wind, 070°, force 1; weather, cloudy; sea, calm; wire angle, 02°.

F-32

0	27.14	33.05	4.62a)	0.22	656	0	27.14	33.05	4.62	0.22	656	0.00
10	26.50	33.06	4.60	0.26	637	10	26.50	33.06	4.60	0.26	637	0.06
25	26.38	33.15	4.76	0.24	626	20	26.42	33.11	4.74	0.25	628	0.13
49	23.18	34.09	3.16	1.19	466	30	26.31	33.17	4.74	0.25	624	0.19
98	13.15	34.74	0.38	2.63	184	50	23.05	34.12	3.06	1.22	462	0.30
198	11.11	34.69	0.40	2.60	151	75	14.10	34.73	0.40	2.55	204	0.38
297	10.20	34.66	0.21	2.21	138	100	13.09	34.74	0.39	2.63	183	0.43
390	8.90	34.59	0.17	2.85	123	150	11.98	34.72	0.39	2.66	164	0.52
577	6.76	34.53	0.37	3.42	97	200	11.09	34.69	0.40	2.59	151	0.61
775	5.23	34.48	0.51	3.66	82	250	10.53	34.68	0.30	2.31	142	0.68
974	4.38	34.52	0.79	3.81	70	300	10.16	34.66	0.20	2.22	137	0.75
1177	3.70	34.54	1.05	3.62	62	400	8.81	34.59	0.17	2.88	122	0.89
1479	2.94	34.57	1.71	3.28	52	500	7.62	34.55	0.22	3.25	107	1.01
1960	2.18	34.61	2.17	3.13	44	600	6.48	34.53	0.37	3.46	93	1.12
2996	1.68	34.61	2.49	2.31	40	700	5.60	34.50	0.42	3.60	86	1.22
						800	5.07	34.48	0.56	3.69	81	1.32
						1000	4.32	34.52	0.81	3.80	70	1.49
						1200	3.64	34.54	1.08	3.59	62	1.64
						1500	2.89	34.57	1.74	3.26	52	1.84
						2000	2.18	34.61	2.18	3.13	44	2.13
						2500	1.83	34.61	2.40	2.65	42	2.39

SPENCER F. BAIRD; November 3, 1955; 1541 GCT; 10°39'N, 89°51'W; sounding, 2100 fm; wind, 345°, force 2; weather, precipitation within sight; sea, smooth; wire angle, 17°.

F-33

0	26.01	33.66	4.68	0.85	579	0	26.01	33.66	4.68	0.85	579	0.00
10	25.84	33.68	4.60	0.92	572	10	25.84	33.68	4.60	0.92	572	0.06
14	25.56	33.69	4.50	1.00	563	20	23.48	33.95	3.80	1.26	481	0.11
19	23.62	33.94	3.87	1.25	490	30	16.60	34.70	1.50	2.00	259	0.15
24	18.74	34.70	1.94	1.83	308	50	14.09	34.92	0.78	2.05	189	0.19
29	16.86	34.70	1.56b)	1.99	264	75	13.61	34.94	0.77	2.01	178	0.24
33	15.91	34.72	1.31c)	2.04	242	100	13.32	34.94	0.78	2.10	173	0.28
43	14.56	34.87	0.84	2.09	203	150	12.89	34.92	0.74	2.22	167	0.37
71	13.66	34.94	0.76	2.00	180	200	12.27	34.86	0.58	2.34	159	0.45
116	13.18	34.93	0.79	2.14	171	250	11.64	34.82	0.42	2.50	151	0.54
233	11.84	34.82	0.51	2.43	155	300	11.10	34.81	0.42	2.56	142	0.61
276	11.35	34.82	0.34d)	2.56	145	400	10.04	34.72	0.15	2.93	131	0.76
327	10.78	34.79	0.56e)	2.58	138	500	8.53	34.62	0.10	3.25	115	0.89
393	10.11	34.73	0.17	2.88	131	600	7.13	34.61	0.13	3.30	97	1.00
462	9.15	34.67	0.11	3.24	121	700	6.20	34.60	0.21	3.35	84	1.10
558	7.65	34.61	0.10	3.27	102	800	5.53	34.53	0.22	3.29	82	1.19
696	6.26	34.60	0.21	3.36	85	1000	4.50	34.57	0.49	3.03	68	1.36
832	5.40	34.53	0.23	3.27	80							
1034	4.40	34.58	0.52	3.00	66							

a) One extra oxygen sample for this station; the value of 0.65 between 0.38 and 0.40 on the chemical data sheet was discarded.

b) Mean value of 1.54 and 1.57 ml/L.

c) Mean value of 1.30 and 1.32 ml/L.

d) Mean value of 0.33 and 0.35 ml/L.

e) Mean value of 0.53 and 0.60 ml/L.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m

F-34

SPENCER F. BAIRD; November 4, 1955; 0249 GCT; 10°03'N, 88°52'W; sounding, 1810 fm; wind, 300°, force 1; weather, missing; sea, calm; wire angle, 06°.

0	26.51	33.18	4.42a)	0.77	628	0	26.51	33.18	4.42	0.77	628	0.00
5	26.51	33.23	4.65b)	0.75	628	10	25.75	33.72	4.66	1.18	567	0.06
10	25.75	33.72	4.66c)	1.18	567	20	25.26	33.78	4.60	1.20	548	0.12
20	25.26	33.78	4.60d)	1.20	548	30	23.16	33.91	3.60	1.47	479	0.17
30	23.16	33.91	3.60e)	1.47	479	50	16.23	34.71	1.08	2.29	250	0.24
35	20.16	34.50	1.82	2.00	358	75	14.02	34.88	0.56	2.53	191	0.29
45	17.89	34.65	1.46f)	2.20	291	100	13.39	34.88	0.52	2.61	178	0.34
54	15.30	34.72	0.87g)	2.37	229	150	12.88	34.87	0.50	2.63	170	0.43
83	13.70	34.88	0.51	2.58	184	200	12.31	34.84	0.35	2.65	162	0.51
121	13.16	34.88	0.53	2.63	175	250	11.53	34.78	0.20	2.68	152	0.60
245	11.67	34.78	0.24h)	2.67	155	300	10.53	34.65	0.14	3.00	144	0.67
292	10.66	34.65	0.14	2.95	146	400	9.21	34.62	0.15	3.26	124	0.81
344	10.04	34.65	0.20	3.13	136	500	7.67	34.57	0.20	3.57	106	0.94
434	8.55	34.61	0.15i)	3.37	116	600	6.80	34.52	0.22	3.55	98	1.05
488	7.77	34.58	0.20j)	3.57	107	700	6.03	34.50	0.20	3.61	90	1.15
590	6.88	34.52	0.22	3.55	99	800	5.37	34.51	0.27	3.68	82	1.25
738	5.78	34.50	0.20	-	87	1000	4.38	34.54	0.53	3.51	69	1.42
879	4.96	34.52	0.36k)	3.70	76							
1081	4.15	34.54	0.60	3.34	66							

F-35

SPENCER F. BAIRD; November 4, 1955; 1445 GCT; 9°27'N, 87°53'W; sounding, 1860 fm; wind, 060°, force 3; weather, cloudy; sea, slight; wire angle, 27°.

0	26.53	33.04	4.66	0.54	640	0	26.53	33.04	4.66	0.54	640	0.00
9	26.48	33.10	4.68	0.54	633	10	26.48	33.12	4.68	0.54	633	0.06
18	25.74	33.44	4.67	1.00	586	20	25.46	33.49	4.55	1.07	574	0.12
28	24.90	33.58	4.26	1.20	552	30	24.35	33.68	4.05	1.31	529	0.18
34	18.97	34.55	2.03	2.11	334	50	15.34	34.83	0.37	2.51	222	0.25
40	16.32	34.82	0.88	2.41	243	75	13.99	34.89	0.19	2.70	190	0.31
50	15.34	34.83	0.37	2.51	222	100	13.33	34.89	0.57	2.59	177	0.32
67	14.28	34.88	0.06	2.74	197	150	12.64	34.86	0.41	2.67	167	0.41
95	13.46	34.90	0.59	2.60	179	200	12.08	34.81	0.35	2.75	159	0.49
123	12.96	34.87	0.46	2.62	171	250	11.40	34.75	0.26	2.86	152	0.57
236	11.60	34.78	0.31	2.86	153	300	10.72	34.71	0.09	3.06	143	0.65
278	10.98	34.72	0.18	2.97	146	400	9.42	34.63	0.04	3.42	128	0.79
328	10.40	34.70	0.00	3.19	138	500	7.98	34.60	0.02	3.32	108	0.91
396	9.45	34.63	0.04	3.42	128	600	6.73	34.58	0.08	3.60	93	1.02
470	8.38	34.61	0.00	3.19	113	700	5.99	34.56	0.09	3.54	85	1.12
565	7.08	34.58	0.08	3.61	97	800	5.40	34.52	0.14	3.41	82	1.21
702	5.98	34.56	0.09	-	84	1000	4.51	34.55	0.37	3.58	69	1.38
851	5.20	34.51	0.16	3.41	80							
1059	4.32	34.56	0.41	3.61	66							

- a) Mean value of 4.40 and 4.44 ml/L.
- b) Mean value of 4.64 and 4.66 ml/L.
- c) Mean value of 4.64 and 4.68 ml/L.
- d) Mean value of 4.58 and 4.61 ml/L.
- e) Mean value of 3.57 and 3.62 ml/L.
- f) Mean value of 1.42 and 1.50 ml/L.
- g) Mean value of 0.85 and 0.89 ml/L.
- h) Mean value of 0.23 and 0.25 ml/L.
- i) Mean value of 0.14 and 0.16 ml/L.
- j) Mean value of 0.19 and 0.21 ml/L.
- k) Mean value of 0.35 and 0.38 ml/L.

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; November 5, 1955; 0402 GCT; 8°24'N, 87°35'W; sounding, 1490 fm; wind, 200°, force 2; weather, missing; sea, smooth; wire angle, 08°.

F-36

0	26.22	32.78	4.77	0.49	649	0	26.22	32.78	4.77	0.49	649	0.00
5	26.22	32.75	4.63	0.53	651	10	26.00	33.25	4.62	0.65	608	0.06
18	25.59	33.47	4.62	0.79	580	20	25.55	33.48	4.60	0.81	578	0.12
23	21.89	34.20	2.58	1.62	423	30	16.63	34.73	0.97	2.35	258	0.16
26	17.62	34.68	1.10	2.28	283	50	14.04	34.87	1.06	2.37	192	0.21
29	16.81	34.72	0.98	2.33	262	75	13.44	34.89	1.10	2.35	179	0.26
32	16.30	34.74	0.94	2.40	250	100	13.01	34.89	0.87	2.40	171	0.30
37	15.60	34.78	0.74	2.47	231	150	12.49	34.86	0.75	2.45	163	0.38
70	13.56	34.88	1.12a)	2.34	182	200	12.02	34.81	0.77	2.48	158	0.46
126	12.73	34.89	0.74	2.42	165	250	11.52	34.78	0.75	2.54	152	0.55
241	11.59	34.78	0.78	2.54	153	300	11.01	34.77	0.49	2.66	143	0.62
288	11.20	34.78	0.59	2.60	146	400	9.30	34.67	0.05	3.17	123	0.76
338	10.38	34.72	0.27	2.88	136	500	7.82	34.62	0.03	3.26	104	0.89
413	9.07	34.65	0.05	3.20	121	600	6.90	34.59	0.02	3.37	94	0.99
484	8.02	34.63	0.06	3.25	106	700	5.95	34.56	0.15	3.46	84	1.09
583	7.05	34.60	0.00	3.35	96	800	5.38	34.56	0.48	3.52	78	1.28
729	5.73	34.56	0.20	3.49	82	1000	4.66	34.55	0.88	3.51	71	1.35
874	5.13	34.56	0.70	3.53	75							
1079	4.35	34.54	0.94	3.50	68							

SPENCER F. BAIRD; November 5, 1955; 1430 GCT; 7°33.5'N, 87°21'W; sounding, 1800 fm; wind, 210°, force 3; weather, precipitation within sight; sea, slight; wire angle, 21°.

F-37

0	25.76	33.35	4.81	0.81	594	0	25.76	33.35	4.81	0.81	594	0.00
9	25.74	33.34	4.76	0.83	593	10	25.73	33.34	4.76	0.83	593	0.06
22	25.56	33.37	4.78	0.87	586	20	25.61	33.35	4.78	0.85	589	0.12
27	25.32	33.42	4.59	0.93	576	30	24.52	33.70	4.19	1.09	532	0.17
29	24.70	33.66	4.26	1.06	540	50	14.63	34.80	0.83	2.60	209	0.25
33	21.86	34.18	3.68	1.64	424	75	13.62	34.84	0.84	2.47	186	0.30
37	18.08	34.61	1.35	2.38	299	100	13.31	34.86	0.80	2.47	179	0.35
45	15.48	34.73	0.83	2.66	232	150	12.81	34.86	0.47	2.71	170	0.43
90	13.41	34.85	0.84	2.46	182	200	12.32	34.77	0.32	2.75	167	0.51
139	12.91	34.87	0.52	2.68	170	250	11.68	34.77	0.33	2.76	155	0.60
224	12.03	34.74	0.29	2.76	163	300	10.98	34.74	0.49	2.80	144	0.68
269	11.36	34.73	0.41	2.77	152	400	9.54	34.69	0.22	3.20	125	0.81
318	10.76	34.74	0.52	2.86	141	500	8.11	34.56	0.12	3.47	113	0.95
385	9.78	34.70	0.27	3.14	128	600	7.04	34.79	0.25	3.57	103	1.07
453	8.72	34.63	0.08	3.39	117	700	6.09	34.49			92	1.18
546	7.62	34.52	0.25	3.51	109	800	5.41	34.51			82	1.28
687	6.22	34.49	0.25	3.66	93	1000	4.56	34.53			71	1.45
826	5.28	34.52	-	-	80							
1028	4.48	34.53	-	-	70							

SPENCER F. BAIRD; November 6, 1955; 0344 GCT; 7°46.5'N, 85°45'W; sounding, 1570 fm; wind, 250°, force 3; weather, cloudy; sea, slight; wire angle, 41°.

F-38

0	25.69	33.31	4.74	-	594	0	25.69	33.31	4.74		594	0.00
8	25.70	33.35	4.82	-	592	10	25.70	33.35	4.87		592	0.06
14	25.69	33.36	4.97	-	590	20	25.10	33.58	4.30		557	0.12
16	25.64	33.39	4.76	-	587	30	19.55	34.48	2.07	1.72	344	0.16
18	25.67	33.44	4.70	-	584	50	15.96	34.83	0.87	2.21	235	0.22
21	24.73	33.64	4.11	0.93	543	75	15.04	34.88	0.78	2.34	212	0.28
31	19.28	34.51	1.98	1.76	335	100	13.92	34.90	0.62	2.40	188	0.33
51	15.89	34.83	0.86	2.22	233	150	13.48	34.93	0.57	2.45	177	0.42
75	15.04	34.88	0.78	2.34	212	200	12.93	34.91	0.47	2.55	167	0.50
95	14.00	34.90	0.62	2.40	189	250	12.19	34.84	0.45	2.67	160	0.59
185	13.16	34.94	0.52	2.50	169	300	11.21	34.76	0.29	2.82	148	0.67
217	12.60	34.85	0.40	2.62	166							
258	12.06	34.83	0.46	2.68	158							
310	10.99	34.74	0.28	2.85	145							
370b)	9.66	34.63	0.15c)	3.00	131							

a) Mean value of 1.10 and 1.13 ml/L.

b) Pretrip below 370 meters.

c) Mean value of 0.14 and 0.16 ml/L.

305

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-39

SPENCER F. BAIRD; November 6, 1955; 1335 GCT; 7°51.5'N, 84°34'W; sounding, 960 fm; wind, 215°, force 3; weather, precipitation within sight; sea, slight; wire angle, 33°.

0	25.54	33.08	4.68	0.60	607	0	25.54	33.08	4.68	0.60	607	0.00
9	25.54	33.13	4.74	0.65	603	10	25.53	33.13	4.74	0.66	603	0.06
19	25.07	33.27	4.54	0.69	579	20	24.93	33.31	4.49	0.70	572	0.12
30	21.26	34.23	2.54	1.32	404	30	21.26	34.23	2.54	1.32	404	0.17
36	20.29	34.40	2.03	1.53	368	50	18.87	34.59	1.58	1.83	319	0.24
42	19.60	34.47	1.85	1.63	346	75	16.57	34.78	1.03	2.10	253	0.31
46	19.08	34.56	1.66	1.78	327	100	14.80	34.85	0.85	2.26	210	0.37
53	18.74	34.61	1.53	1.86	315	150	13.29	34.86	0.61	2.36	178	0.47
68	17.44	34.74	1.16	2.02	276	200	12.25	34.83	0.41	2.49	161	0.55
113	14.26	34.85	0.79	2.30	198	250	11.49	34.77	0.32	2.68	152	0.64
232	11.76	34.81	0.34	2.59	153	300	10.71	34.73	0.28	3.00	141	0.71
282	11.02	34.72	0.30	2.87	147	400	9.26	34.65	0.13	3.33	124	0.86
332	10.24	34.74	0.23	3.16	132	500	8.00	34.58	0.13	3.61	110	0.98
398	9.28	34.65	0.14	3.33	123	600	6.67	34.52	0.40	3.74	97	1.10
479	8.28	34.60	0.10	3.56	113	700	5.91	34.51	0.51	3.74	88	1.20
579	6.90	34.53	0.36	3.74	99	800	5.36	34.52	0.60	3.79	81	1.29
730	5.76	34.51	0.52	3.74	85	1000	4.50	34.51	0.87	3.76	72	1.46
881	5.00	34.52	0.68	3.83	77							
1079	4.25	34.51	1.11	3.66	69							

F-40

SPENCER F. BAIRD; November 7, 1955; 0223 GCT; 8°39'N, 84°46'W; sounding, 885 fm; wind, 210°, force 3; weather, cloudy; sea, slight; wire angle, 45°.

0	25.87	33.01	4.82	0.59	622	0	25.87	33.01	4.82	0.59	622	0.00
8	25.86	33.02	4.69	0.60	621	10	25.86	33.02	4.72	0.60	621	0.06
13	25.86	33.03	4.77	0.60	619	20	23.94	33.57	3.72	0.95	526	0.12
16	25.82	33.02	4.71	0.66	620	30	19.35	34.53	1.50	1.95	335	0.16
18	25.79	33.07	4.71	0.68	614	50	17.13	34.73	0.82	2.04	269	0.23
20	23.94	33.57	3.72	0.95	526	75	15.26	34.87	0.72	2.32	217	0.29
29	19.50	34.52	1.56	1.95	340	100	14.50	34.90	0.62	2.39	199	0.34
37	18.17	34.58	1.11	1.90	303	150	13.47	34.88	0.58	2.50	181	0.44
59	16.12	34.79	0.78	2.19	242	200	12.70	34.87	0.42	2.62	166	0.53
90	14.78	34.91	0.66	2.37	204	250	11.62	34.80	0.30	2.90	152	0.61
161	13.32	34.88	0.57	2.52	178	300	10.82	34.71	0.17	3.03	144	0.69
195	12.78	34.87	0.43	2.60	168	400	9.17	34.63	0.13	3.31	123	0.83
232	11.96	34.82	0.30	2.80	157	500	7.91	34.58	0.16	3.51	109	0.95
274	11.20	34.75	0.26	3.01	148	600	6.63	34.58	0.42	3.78	91	1.06
325	10.50	34.70	0.14	3.06	140	700	5.90	34.55	0.44	3.84	85	1.16
384	9.40	34.65	0.14	3.28	125							
476	8.24	34.57	0.11	3.44	115							
570	7.00	34.58	0.39	3.73	97							
746	5.71	34.53	0.46	3.86	83							

F-41

SPENCER F. BAIRD; November 7, 1955; 0413 GCT; 9°13'N, 84°51'W; sounding, 990 fm; wind, 250°, force 2; weather, overcast; sea, slight; wire angle, 22°.

0	25.82	31.02	5.02	0.25	764	0	25.82	31.02	5.02	0.25	764	0.00
5	25.82	31.00	5.02	0.23	764	10	25.36	32.56	4.46	0.47	636	0.07
10	25.36	32.56	4.46	0.47	636	20	21.60	34.23	2.52	1.08	413	0.12
15	25.59	34.00	2.91	0.90	458	30	18.50	34.59	1.44	1.44	311	0.16
21	21.52	34.25	2.49	1.09	410	50	16.94	34.76	0.95	1.62	262	0.22
27	19.29	34.58	1.66	1.31	330	75	14.17	34.79	0.83	1.70	201	0.27
33	18.22	34.60	1.33	1.48	302	100	13.79	34.81	0.97	1.72	191	0.32
44	17.26	34.72	0.95	1.59	273	150	13.07	34.89	0.51	1.94	171	0.41
62	15.82	34.82	0.97	1.67	233	200	12.38	34.86	0.39	2.08	161	0.50
106	13.72	34.83	0.99	1.72	188	250	11.60	34.81	0.37	2.20	151	0.58
158	12.98	34.90	0.47	1.98	170	300	10.72	34.75	0.25	2.38	140	0.66
235	11.86	34.83	0.40	2.15	154	400	9.10	34.64	0.12	2.94	122	0.79
366	9.65	34.69	0.20	2.74	126	500	7.88	34.53	0.11	3.19	112	0.92
435	8.66	34.58	0.10	3.05	120	600	7.09	34.57	0.20	3.44	99	1.03
520	7.66	34.54	0.13	3.25	108	700	6.39	34.58	0.32	3.59	88	1.14
621	6.95	34.52	0.22	3.49	100	800	5.74	34.56	0.47	3.62	82	1.23
781	5.87	34.56	0.44	3.62	83	1000	4.80	34.52	0.73	3.43	74	1.41
936	5.14	34.54	0.61	3.51	77							
1152	3.98	34.49	1.11	3.25	68							

306

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; November 11, 1955; 1420 GCT; 8°54'N, 84°41.5'W; sounding, 1280 fm; wind, calm; weather, intermittent slight drizzle; sea, smooth; wire angle, 00°.

F-42

0	26.23	30.89	4.83		786	0	26.23	30.89	4.83		786	0.00
5	26.28	30.95	4.76		782	10	25.18	33.35	4.25		576	0.07
10	25.18	33.35	4.25		576	20	20.84	34.34	2.46		387	0.12
16	23.07	33.93	3.13		475	30	19.53	34.49	1.83		342	0.15
20	20.84	34.34	2.46		387	50	17.30	34.72	0.96		273	0.21
31	19.40	34.50	1.78		339	75	14.35	34.80	0.75		204	0.27
54	15.96	34.84	0.85		235	100	13.78	34.82	0.99		191	0.32
83	14.12	34.79	0.86		200	150	13.02	34.87	0.52		173	0.41
119	13.44	34.88	1.03		180	200	12.37	34.82	0.36		164	0.50
160	12.90	34.85	0.45		172	250	11.61	34.79	0.30		153	0.59
212	12.17	34.81	0.35		161	300	10.84	34.75	0.21		142	0.66
317	10.56	34.73	0.19		138	400	9.39	34.67	0.10		124	0.80
377	9.63	34.69	0.11		126	500	8.29	34.62	0.10		111	0.93
454	8.88	34.64	0.10		119	600	7.06	34.61	0.19		95	1.03
536	7.75	34.63	0.13		102	700	6.33	34.57	0.30		88	1.14
640	6.76	34.60	0.25		92	800	5.72	34.53	0.47		84	1.24
796	5.74	34.53	0.46		85	1000	4.74	34.56	0.88		71	1.41
951	4.98	34.56	0.78		73							
1156	4.02	34.56	1.22		63							

SPENCER F. BAIRD; November 11, 1955; 2243 GCT; 7°52.5'N, 84°32'W; sounding, 720 fm; wind, 225°, force 3; weather, intermittent moderate rain; sea, slight; wire angle, 36°.

F-43

0	26.13	33.22	4.47	0.35	614	0	26.13	33.22	4.47	0.35	614	0.00
13	26.08	33.26	4.84	0.33	610	10	26.09	33.25	4.75	0.33	611	0.06
25	26.00	33.30	4.76	0.34	604	20	26.02	33.29	4.79	0.33	607	0.12
30	25.84	33.30	4.62	0.41	600	30	25.84	33.30	4.62	0.41	600	0.18
35	22.34	33.95	3.15	1.00	454	50	19.50	34.48	1.92	1.53	342	0.28
43	20.70	34.31	2.22	1.28	384	75	16.68	34.77	1.13	1.89	256	0.35
61	17.98	34.67	1.34	1.77	292	100	15.54	34.87	0.92	2.05	224	0.41
101	15.53	34.87	0.92	2.05	224	150	14.07	34.88	0.67	2.29	192	0.52
122	14.72	34.87	0.76	2.20	205	200	13.47	34.91	0.70	2.39	178	0.62
159	13.91	34.88	0.66	2.32	188	250	11.58	34.79	0.02	2.70	152	0.70
201	13.46	34.91	0.70	2.39	178	300	10.37	34.74	0.20	2.99	135	0.78
235	12.26	34.83	0.00	2.60	161	400	9.02	34.65	0.11	3.54	120	0.91
278	10.81	34.76	0.16	2.84	140	500	7.44	34.59	0.34	3.58	101	1.03
336	9.78	34.72	0.23	3.28	127	600	6.48	34.56	0.39	3.35	91	1.14
401	9.01	34.65	0.11	3.54	120	700	5.82	34.56	0.55	3.74	83	1.23
487	7.60	34.60	0.34	3.59	103	800	5.32	34.56	0.69	3.81	77	1.33
610	6.38	34.56	0.41	3.34	90	1000						(1.49)
742	5.64	34.56	0.59	3.81	81							
931	4.72	34.57	0.86	3.72	70							

SPENCER F. BAIRD; November 12, 1955; 0650, 0710 GCT; 6°53.5'N, 84°21'W; sounding, 850 fm; wind, 190°, force 2; weather, intermittent moderate rain; sea, slight; wire angle, 10°, 13°.

F-44

0	25.69	33.08	4.76		611	0	25.69	33.08	4.76		611	0.00
10	25.69	33.06	4.77		613	10	25.69	33.06	4.77		613	0.06
25	25.70	33.09	4.25		610	20	25.70	33.08	4.42		612	0.12
30	25.66	33.15	4.64		606	30	25.66	33.15	4.64		606	0.18
						50	21.24	34.22	2.41		406	0.28
39	23.22	33.78	3.28		490	75	16.54	34.77	1.11		253	0.37
49	21.38	34.20	2.46		410	100	15.00	34.89	0.80		210	0.42
59	19.06	34.52	1.75		329	150	13.21	34.86	0.48		175	0.52
64	17.74	34.67	1.52		287	200	12.49	34.83	0.47		163	0.62
77	16.37	34.78	1.07		248	250	11.89	34.80	0.41		156	0.70
129	13.67	34.87	0.46		185	300	10.98	34.74	0.18		145	0.77
263	11.76	34.80	0.38		154	400	9.03	34.66	0.12		119	0.91
310	10.72	34.73	0.15		142	500	7.71	34.58	0.13		106	1.04
365	9.65	34.70	0.19		126	600	6.83	34.55	0.43		97	1.15
440	8.47	34.63	0.10		113	700	6.10	34.53	0.11		88	1.25
523	7.50	34.58	0.15		103	800	5.55	34.52	0.18		83	1.35
627	6.66	34.55	0.45		94	1000	4.44	34.56	0.98		72	1.52
784	5.66	34.52	0.00		84							
936	4.72	34.58	0.87		69							
1144	4.04	34.54	1.23		65							

307

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

F-45

SPENCER F. BAIRD; November 12, 1955; 1422 GCT; 6°04.5'N, 84°08.5'W; sounding, 1120 fm; wind, 225°, force 4; weather, cloudy; sea, slight; wire angle, 17°.

0	25.86	32.99	4.69	0.47	623	0	25.86	32.99	4.69	0.47	623	0.00
14	25.84	33.01	4.72	0.48	621	10	25.85	33.00	4.71	0.48	622	0.06
33	25.76	33.01	4.68	0.48	619	20	25.83	33.01	4.71	0.48	621	0.12
48	20.36	34.29	2.32	1.27	378	30	25.77	33.01	4.69	0.48	619	0.19
53	19.00	34.52	2.07	1.47	327	50	19.85	34.37	2.22	1.34	360	0.28
57	18.41	34.70	1.94	1.62	300	75	15.23	34.97	1.07	1.97	211	0.36
62	17.55	34.76	1.69	1.72	276	100	14.18	34.97	1.07	2.02	188	0.41
67	16.80	34.76	1.52	1.78	259	150	13.31	34.91	1.19	2.10	176	0.50
81	14.89	35.01	1.04	2.00	200	200	12.83	34.88	1.07	2.20	168	0.59
139	13.44	34.92	1.20	2.08	177	250	12.30	34.84	0.79	2.34	162	0.68
274	11.94	34.81	0.61	2.42	157	300	11.50	34.79	0.39	2.50	151	0.75
330	10.90	34.77	0.23	2.63	142	400	9.49	34.68	0.08	3.00	125	0.90
386	9.75	34.69	0.00	2.94	128	500	7.79	34.63	0.13	3.29	103	1.03
462	8.26	34.64	0.15	3.19	109	600	6.83	34.61	0.43	3.41	92	1.13
551	7.30	34.63	0.09	3.38	96	700	6.02	34.57	0.41	3.39	85	1.23
655	6.31	34.58	0.29	3.40	88	800	5.47	34.56	0.72	3.37	78	1.32
821	5.38	34.56	0.75	3.37	78	1000	4.69	34.55	0.86	3.43	71	1.49
981	4.72	34.56	0.86	3.43	70	1200	4.01	34.54	1.25	3.37	66	1.65
1200	4.01	34.54	1.25	3.37	66							

F-46

SPENCER F. BAIRD; November 12, 1955; 2340 GCT; 5°02'N, 84°02.5'W; sounding, 1785 fm; wind, 215°, force 4; weather, cloudy; sea, smooth; wire angle, 25°.

0	25.80	33.08	4.90	0.29	614	0	25.80	33.08	4.90	0.29	614	0.00
14	25.80	33.08	4.90	0.27	614	10	25.80	33.08	4.90	0.28	614	0.06
28	25.73	33.35	4.70	0.28	593	20	25.79	33.19	4.81	0.27	606	0.12
34	23.29	33.80	3.74	0.71	490	30	24.56	33.63	4.18	0.49	538	0.18
41	20.39	34.40	2.73	1.10	371	50	17.12	34.83	1.78	1.54	261	0.26
45	17.96	34.78	2.10	1.38	283	75	15.44	34.94	1.10	1.79	216	0.32
50	17.12	34.83	1.78	1.54	261	100	14.43	34.98	0.95	2.03	192	0.37
58	16.59	34.86	1.60	1.71	247	150	13.64	34.93	0.73	2.17	180	0.47
75	15.44	34.94	1.10	1.79	216	200	13.02	34.91	0.59	2.28	170	0.56
123	13.94	34.95	0.80	2.13	185	250	12.44	34.88	0.47	2.39	161	0.64
240	12.60	34.90	0.48	2.36	163	300	11.52	34.81	0.42	2.57	149	0.72
284	11.81	34.83	0.43	2.50	153	400	9.47	34.68	0.14	3.15	124	0.87
337	10.74	34.76	0.31	2.88	140	500	7.93	34.62	0.19	3.43	107	0.99
409	9.29	34.68	0.14	3.19	122	600	6.87	34.59	0.44	3.49	94	1.09
484	8.13	34.62	0.17	3.41	110	700	6.11	34.56	0.48	3.44	87	1.20
584	7.03	34.60	0.43	3.49	95	800	5.48	34.56	0.68	3.44	79	1.29
732	5.89	34.56	0.53	3.44	84	1000	4.45	34.56	1.15	3.33	68	1.46
880	5.06	34.57	0.90	3.44	73							
1082	4.14	34.56	1.39	3.19	64							

F-47

SPENCER F. BAIRD; November 13, 1955; 0834 GCT; 4°01.5'N, 83°56'W; sounding, 1920 fm; wind, 200°, force 4; weather, cloudy; sea, moderate; wire angle, 18°.

0	25.50	33.56	4.58	0.22	571	0	25.50	33.56	4.58	0.22	571	0.00
19	25.52	33.55	4.74	0.25	572	10	25.51	33.56	4.66	0.23	571	0.06
43	25.42	33.57	4.60	0.26	567	20	25.52	33.55	4.73	0.25	572	0.11
47	22.25	33.98	3.51	0.76	450	30	25.50	33.56	4.68	0.25	572	0.17
52	18.84	34.60	2.43	1.26	318	50	20.61	34.28	2.94	1.00	386	0.27
56	17.28	34.79	1.82	1.55	267	75	15.43	34.98	1.11	1.69	212	0.34
60	16.52	34.88	1.54	1.74	244	100	14.51	34.98	0.97	1.94	194	0.39
69	15.74	34.97	1.51	1.62	220	150	13.71	34.95	0.75	2.07	180	0.49
101	14.50	34.98	0.96	1.95	194	200	12.87	34.87	0.58	2.24	170	0.58
201	12.86	34.87	0.57	2.24	169	250	11.78	34.77	0.31	2.51	157	0.67
254	11.72	34.77	0.30	2.52	156	300	10.46	34.72	0.19	2.83	138	0.74
300	10.46	34.72	0.19	2.83	138	400	8.72	34.64	0.17	3.22	117	0.88
355	9.65	34.69	0.15	3.00	126	500	7.54	34.61	0.27	3.32	101	0.99
429	8.18	34.60	0.24	3.29	112	600	6.81	34.57	0.46	3.37	95	1.10
509	7.48	34.61	0.30	3.32	101	700	6.09	34.55	0.67	3.31	87	1.20
610	6.76	34.57	0.50	3.37	94	800	5.44	34.53	0.92	3.31	81	1.30
761	5.68	34.54	0.82	3.27	83	1000	4.55	34.53	1.25	3.31	71	1.47
911	4.99	34.52	1.08	3.36	76							
1116	4.24	34.54	1.41	3.22	67							

308

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m	

SIO

EASTROPIC

SPENCER F. BAIRD; November 13, 1955; 1628 GCT; 3°02'N, 83°52'W; sounding, 1505 fm; wind, 210°, force 3; weather, cloudy; sea, moderate; wire angle, 14°.

F-48

0	25.40	33.59	4.89	0.09	566	0	25.40	33.59	4.89	0.09	566	0.00
20	25.36	33.59	4.85	0.11	564	10	25.38	33.59	4.87	0.10	565	0.06
44	19.76	34.40	2.45	1.17	355	20	25.36	33.59	4.85	0.11	564	0.11
48	17.46	34.70	1.77	1.48	279	30	25.32	33.60	4.75	0.12	563	0.17
53	16.82	34.74	1.75	1.48	261	50	17.18	34.71	1.76	1.48	272	0.25
58	16.61	34.76	1.76	1.50	255	75	15.34	34.93	1.09	1.85	215	0.31
63	16.07	34.83	1.45	1.62	238	100	14.25	34.96	0.78	1.98	190	0.36
72	15.58	34.90	1.30	1.79	222	150	13.38	34.95	0.73	2.10	173	0.46
93	14.40	34.96	0.81	1.97	193	200	12.68	34.88	0.50	2.25	166	0.54
144	13.48	34.96	0.77	2.07	175	250	11.97	34.82	0.32	2.40	157	0.63
262	11.80	34.81	0.30	2.43	155	300	10.93	34.80	0.32	2.55	140	0.71
308	10.71	34.79	0.34	2.59	137	400	9.31	34.71	0.16	2.87	120	0.85
366	9.80	34.73	0.25	2.80	125	500	8.13	34.67	0.35	3.12	105	0.97
439	8.73	34.69	0.37	2.98	113	600	7.17	34.61	0.34	3.24	97	1.08
517	8.01	34.67	0.35	3.14	104	700	6.23	34.61	0.67	3.30	84	1.18
618	7.01	34.61	0.37	3.25	95	800	5.51	34.61	1.09	3.34	76	1.26
769	5.70	34.61	1.13	-	78	1000	4.62	34.61	1.19	3.28	66	1.42
922	5.03	34.61	1.04	3.32	70							
1129	4.02	34.61	1.73	3.15	60							

SPENCER F. BAIRD; November 14, 1955; 0051 GCT; 1°58.5'N, 83°49.5'W; sounding, 1800 fm; wind, 280°, force 3; weather, cloudy; sea, slight; wire angle, 10°.

F-49

0	24.95	33.60	4.75	0.13	553	0	24.95	33.60	4.75	0.13	553	0.00
21	24.96	33.59	4.76	0.15	551	10	24.95	33.60	4.75	0.14	553	0.06
37	24.94	33.62	4.72	0.13	550	20	24.96	33.59	4.76	0.15	553	0.11
39	24.88	33.62	4.70	0.18	548	30	24.93	33.61	4.74	0.14	551	0.17
42	24.58	33.65	4.52	0.25	538	50	14.45	34.91	1.50	1.67	198	0.24
45	20.14	34.14	2.85	1.09	384	75	13.88	34.95	1.36	1.82	184	0.29
47	15.87	34.72	1.75	1.60	241	100	13.76	34.96	1.44	1.82	181	0.33
50	14.45	34.91	1.50	1.67	198	150	13.21	34.95	1.26	1.90	170	0.42
53	14.44	34.94	1.56	1.65	195	200	12.47	34.87	0.98	2.05	162	0.50
56	14.42	34.97	1.54	1.70	192	250	11.83	34.83	0.66	2.16	153	0.59
59	14.30	34.99	1.46	1.75	188	300	11.17	34.80	0.44	2.30	144	0.67
61	14.18	34.96	1.49	1.78	188	400	9.73	34.72	0.28	2.61	126	0.81
68	13.93	34.95	1.36	1.83	184	500	8.39	34.68	0.43	2.89	108	0.94
100	13.76	34.96	1.44	1.82	181	600	7.23	34.58	0.62	3.12	99	1.05
195	12.56	34.88	1.01	2.03	163	700	6.34	34.57	0.66	3.26	89	1.15
583	7.42	34.58	0.63	3.08	102	800	5.63	34.55	1.23	3.27	82	1.25
727	6.19	34.57	0.70	3.27	87	1000	4.37	34.53	1.38	3.27	70	1.42
869	5.12	34.54	1.22	3.27	77							
1070	4.24	34.53	1.44	3.27	68							

SPENCER F. BAIRD; November 14, 1955; 1035 GCT; 0°57.5'N, 83°48.5'W; sounding, 1850 fm; wind, 220°, force 4; weather, cloudy; sea, slight; wire angle, 13°.

F-50

0	24.27	33.68	4.83	0.13	528	0	24.27	33.68	4.83	0.13	528	0.00
20	24.27	33.69	4.76	0.14	527	10	24.27	33.68	4.79	0.14	528	0.05
44	13.99	34.97	1.57	1.64	184	20	24.27	33.69	4.76	0.14	527	0.11
48	13.90	34.98	1.55	1.64	182	30	24.26	33.69	3.43	0.15	527	0.16
53	13.90	34.98	1.52	1.68	182	50	13.90	34.98	1.55	1.66	181	0.23
58	13.86	34.99	1.53	1.74	180	75	13.64	34.96	1.67	1.77	178	0.27
63	13.78	34.97	1.47	1.75	180	100	13.48	34.95	1.73	1.79	175	0.32
106	13.44	34.95	1.74	1.79	175	150	13.02	34.90	1.59	1.80	171	0.41
159	12.94	34.90	1.59	1.80	169	200	12.52	34.87	1.49	1.89	163	0.49
207	12.48	34.87	1.48	1.91	162	250	12.00	34.85	0.40	2.22	154	0.58
259	11.84	34.85	0.39	2.27	152	300	10.25	34.76	0.15	2.62	131	0.65
303	10.20	34.76	0.15	2.64	130	400	9.28	34.68	0.39	2.79	122	0.78
360	9.66	34.70	0.42a)	2.78	125	500	8.08	34.65	0.45	2.98	107	0.90
436	8.91	34.67	0.37	2.80	117	600	6.87	34.56	0.83	3.04	96	1.01
517	7.80	34.61	0.51	3.01	105	700	6.15	34.56	0.92	3.06	87	1.11
630	6.66	34.56	0.86	3.04	93	800	5.51	34.53	1.26	3.10	82	1.21
781	5.64	34.55	1.22	3.09	82	1000	4.63	34.53	1.38	3.11	72	1.38
932	5.00	34.52	1.33	3.11	76							
1138	3.96	34.54	1.55	3.11	64							

309

a) Mean value of 0.38 and 0.47 ml/L.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5}\text{cm}^3/\text{g}$	m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5}\text{cm}^3/\text{g}$	dyn m

F-51

SPENCER F. BAIRD; November 15, 1955; 0205, 0433 GCT; 0°00', 83°47'W; sounding, 1450 fm; wind, 190°, force 3; weather, cloudy; sea, slight; wire angle, 05°, 15°.

0	22.27	33.82	4.88	0.31	462	0	22.27	33.82	4.88	0.31	462	0.00
20	22.08	33.83	4.92	0.31	456	10	22.17	33.83	4.90	0.31	459	0.05
31	21.89	33.85	4.90	0.37	448	20	22.08	33.83	4.92	0.31	456	0.09
43	17.17	34.47	3.14	1.24	288	30	21.90	33.85	4.90	0.37	450	0.14
49	13.93	34.94	1.55	1.85	185	50	13.90	34.95	1.55	1.87	184	0.20
54	13.80	34.96	1.61	1.87	181	75	13.54	34.97	1.57	1.79	175	0.25
60	13.74	34.96	1.50	1.85	180	100	13.36	34.96	1.90	1.72	172	0.30
65	13.68	34.97	1.59	1.85	178	150	13.12	34.94	2.10	1.68	170	0.38
79	13.50	34.97	1.54	1.77	174	200	12.82	34.90	1.91	1.84	167	0.46
149	13.13	34.94	2.11	1.68	169	250	11.81	34.84	0.40	2.40	152	0.55
244	12.25	34.88	1.00	2.20	157	300	10.28	34.77	0.15	2.86	131	0.62
291	10.44	34.78	0.21	2.82	133	400	9.42	34.72	0.31	3.02	121	0.76
343	9.88	34.74	0.34	2.94	127	500	7.91	34.67	0.65	3.09	102	0.88
414	9.22	34.72	0.29	3.04	118	600	7.19	34.61	0.82	3.22	96	0.97
488	8.02	34.68	0.59	3.07	103	700	6.31	34.58	0.95	3.07	88	1.08
588	7.28	34.62	0.81	3.22	97	800	5.36	34.58	1.33	3.14	76	1.17
736	5.88	34.58	1.07	3.02	82	1000	4.59	34.58	1.50	3.34	67	1.33
878	4.87	34.58	1.48	3.30	71	1200	4.05	34.58	1.58	3.27	62	1.48
1075	4.41	34.58	1.53	3.34	65	1500	3.06	34.60	1.88	3.15	52	1.68
						2000	(2.28)	(34.65)	(2.28)	(2.96)	(41)	(1.97)
1362	3.50	34.59	1.72	3.09	56							
1552	2.92	34.61	1.95	3.16	50							
1992	2.28	34.65	2.28	2.96	41							

F-52

SPENCER F. BAIRD; November 16, 1955; 0757 GCT; 0°58'S, 83°49.5'W; sounding, 1390 fm; wind, 200°, force 2; weather, cloudy; sea, smooth; wire angle, 22°.

0	17.96	34.64	5.28	1.09	294	0	17.96	34.64	5.28	1.09	294	0.00
9	17.96	34.65	5.11	1.06	294	10	17.96	34.65	5.12	1.06	293	0.03
18	17.97	34.65	5.23	1.07	295	20	17.95	34.64	5.12	1.07	294	0.06
28	17.54	34.61	4.70	1.11	286	30	17.35	34.61	4.53	1.15	282	0.09
42	15.88	34.70	2.82	1.51	243	50	15.69	34.75	2.73	1.54	235	0.14
51	15.68	34.75	2.72	1.54	236	75	14.28	34.93	1.68	1.55	192	0.19
74	14.29	34.93	1.69	1.55	193	100	13.82	34.95	1.62	1.57	182	0.24
100	13.82	34.95	1.62	1.57	182	150	13.41	34.94	1.92	1.67	174	0.33
147	13.44	34.94	1.92	1.65	175	200	12.63	34.91	1.57	2.10	162	0.41
215	12.24	34.88	0.63	2.48	157	250	11.85	34.84	0.38	2.77	153	0.49
245	11.94	34.85	0.46	2.76	154	300	10.75	34.77	0.32	2.80	139	0.57
287	11.06	34.79	0.34	2.79	143	400	9.20	34.70	0.34	3.00	119	0.70
339	9.79	34.73	0.52	2.88	125	500	8.10	34.62	0.86	3.13	108	0.83
411	9.15	34.70	0.33	3.01	118	600	7.13	34.59	0.52	3.24	97	0.94
486	8.27	34.63	0.90	3.11	111	700	6.67	34.57	0.88	3.22	93	1.04
583	7.26	34.60	0.43	3.24	99	800	5.93	34.55	0.97	3.25	85	1.14
726	6.62	34.56	0.89	3.22	92	1000	4.51	34.53	1.56	3.26	71	1.32
870	5.04	34.53	1.55	3.28	76							
1070	4.46	34.53	1.56	3.25	70							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; November 16, 1955; 1716 GCT; 2°02'S, 83°52'W; sounding, 1600 fm; wind, 195°, force 2; weather, intermittent slight drizzle; sea, smooth; wire angle, 30°.

F-53

0	17.78	34.76	4.89	1.08	282	0	17.78	34.76	4.89	1.08	281	0.00
9	17.56	34.75	4.73	1.13	277	10	17.55	34.75	4.72	1.13	278	0.03
17	17.36	34.74	4.53	1.16	272	20	17.26	34.74	4.46	1.21	271	0.06
20	17.26	34.74	4.46	1.21	270	30	14.88	34.96	2.12	1.62	202	0.08
23	16.73	34.72	3.82	1.32	261	50	14.36	34.99	1.78	1.78	190	0.12
27	15.39	34.88	2.66	1.59	219	75	13.94	35.00	1.54	1.84	181	0.16
31	14.87	34.96	2.11	1.62	202	100	13.70	34.97	1.31	1.83	178	0.21
34	14.74	34.96	2.01	1.67	200	150	13.42	34.94	1.11	1.81	175	0.30
68	14.02	35.00	1.63	1.84	183	200	12.75	34.90	0.67	2.02	166	0.38
150	13.42	34.94	1.11	1.81	175	250	11.33	34.82	0.30	2.48	145	0.46
249	11.35	34.83	0.31	2.47	145	300	10.66	34.76	0.28	2.62	138	0.54
300	10.66	34.76	0.28	2.62	137	400	9.42	34.71	0.38	2.88	122	0.67
352	10.00	34.74	0.27	2.78	129	500	8.31	34.63	0.45	3.05	111	0.81
419	9.18	34.69	0.40	2.93	120	600	7.39	34.58	0.78	3.13	101	0.91
498	8.36	34.64	0.43	3.05	110	700	6.30	34.53	0.93	3.17	91	1.02
594	7.46	34.59	0.66	3.13	102	800	5.32	34.54	1.25	3.23	78	1.11
745	5.72	34.52	1.06	3.21	84	1000	4.53	34.54	1.56	3.22	70	1.28
895	5.01	34.55	1.38	3.24	75							
1093	4.18	34.54	1.64	3.19	67							

SPENCER F. BAIRD; November 17, 1955; 0159, 0218 GCT; 2°53.5'S, 83°35'W; sounding, 1670 fm; wind, 190°, force 3; weather, cloudy; sea, slight; wire angle, 28°, 33°.

F-54

1	18.26	34.85	5.67	1.22	285	0	(18.26)	(34.85)	(5.67)	(1.22)	(286)	(0.00)
11	18.10	34.82	5.67	1.24	284	10	18.11	34.82	5.67	1.24	285	0.03
						20	17.99	34.82	5.21	1.24	282	0.06
20	17.99	34.82	5.21	1.24	282	30	16.24	34.92	3.33	1.53	235	0.08
25	16.97	34.87	4.38	1.37	255	50	15.00	34.98	2.05	1.79	203	0.13
30	16.24	34.92	3.33	1.53	235	75	13.98	34.93	1.61	2.01	187	0.18
45	15.50	34.97	2.58	1.70	215	100	13.67	34.90	1.35	2.07	183	0.22
57	14.71	34.98	1.84	1.84	198	150	13.10	34.89	0.96	2.27	172	0.31
75	13.98	34.93	1.61	2.01	187	200	12.49	34.84	0.43	2.52	164	0.39
118	13.46	34.89	1.19	2.11	180	250	11.72	34.80	0.31	2.67	154	0.47
177	12.78	34.88	0.70	2.42	167	300	11.00	34.76	0.33	2.81	144	0.56
229	12.05	34.81	0.24	2.64	159	400	8.91	34.62	0.38	3.08	121	0.70
274	11.38	34.78	0.36	2.73	149	500	7.81	34.57	0.51	3.21	108	0.81
321	10.60	34.73	0.32	2.89	139	600	6.98	34.55	0.93	3.35	98	0.93
385	9.20	34.64	0.37	3.07	123	700	6.13	34.52	0.96	3.34	90	1.03
461	8.14	34.58	0.50	3.12	112	800	5.41	34.51	1.27	3.35	82	1.12
551	7.37	34.56	0.82	3.34	102	1000	4.51	34.48	1.48	3.26	74	1.30
690	6.22	34.52	0.95	3.33	91							
832	5.21	34.51	1.33	3.34	80							
1035	4.40	34.48	1.51	3.23	73							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	dyn m

F-55

SPENCER F. BAIRD; November 17, 1955; 1102 GCT; 3°42'S, 83°06'W; sounding, 1320 fm; wind, 160°, force 2; weather, overcast; sea, smooth; wire angle, 18°.

0	18.02	34.83	5.80	0.56	283	0	18.02	34.83	5.80	0.56	283	0.00
10	18.00	34.82	5.87	0.55	282	10	18.00	34.82	5.87	0.55	282	0.03
19	17.63	34.92	4.98	1.07	266	20	17.61	34.92	4.97	1.09	266	0.06
28	15.59	35.00	2.51	1.71	215	30	15.00	35.00	2.05	1.78	202	0.08
37	14.05	35.00	1.64	1.75	184	50	13.89	34.98	1.42	1.82	181	0.12
42	13.98	35.01	1.71	1.70	182	75	13.62	34.98	1.30	1.88	176	0.16
51	13.88	34.98	1.42	1.81	182	100	13.46	34.97	1.20	1.95	174	0.21
100	13.46	34.97	1.20	1.95	175	150	13.25	34.92	0.77	2.16	173	0.29
149	13.26	34.92	0.78	2.14	174	200	12.68	34.88	0.13	2.57	166	0.37
198	12.72	34.88	0.13	2.56	166	250	11.84	34.85	0.13	2.56	152	0.46
250	11.84	34.85	0.13	2.56	152	300	10.56	34.77	0.16	2.67	136	0.54
296	10.62	34.77	0.15	2.66	136	400	9.28	34.67	0.21	2.93	122	0.67
351	9.88	34.72	0.20	2.79	128	500	8.06	34.59	0.27	3.21	111	0.79
424	8.96	34.65	0.22	3.00	119	600	7.12	34.56	0.32	3.30	99	0.91
501	8.05	34.59	0.28	3.21	110	700	6.17	34.52	0.95	3.28	90	1.01
602	7.08	34.56	0.34	3.30	99	800	5.32	34.52	1.24	3.33	80	1.10
753	5.68	34.52	0.96	3.29	84	1000	4.42	34.53	1.50	3.27	70	1.28
898	4.90	34.53	1.33	3.34	75	1200	3.79	34.54	1.69		63	1.43
1101	4.09	34.53	1.62	3.21	67	1500	3.01	34.56	1.90		54	1.64
1334	3.48	34.54	1.78	-	60							
1522	2.92	34.56	1.93	-	53							

F-56

SPENCER F. BAIRD; November 21, 1955; 0225 GCT; 1°59'S, 83°20'W; sounding, 850 fm; wind, 160°, force 2; weather, overcast; sea, smooth; wire angle, 20°.

0	20.35	33.90	4.97	0.56	406	0	20.35	33.90	4.97	0.56	406	0.00
23	18.28	34.33	4.17	1.05	324	10	19.84	34.02	4.93	0.68	384	0.04
47	14.34	34.99	1.63	1.87	190	20	18.87	34.23	4.60	0.92	346	0.08
93	13.78	34.98	1.59	1.94	179	30	15.84	34.84	2.62	1.56	232	0.10
143	13.54	34.97	1.79	1.87	175	50	14.28	34.99	1.60	1.89	188	0.15
182	13.28	34.94	0.92	2.19	172	75	13.93	34.98	1.57	1.94	182	0.19
274	11.10	34.81	0.19	2.80	142	100	13.72	34.98	1.63	1.92	178	0.24
364	9.52	34.73	0.23	3.07	121	150	13.48	34.96	1.74	1.91	174	0.33
543	7.66	34.60	0.72	3.19	103	200	12.97	34.92	0.58	2.34	168	0.41
740	5.61	34.56	1.14	3.36	81	250	11.48	34.83	0.22	2.72	148	0.49
927	5.01	34.56	1.46	3.38	74	300	10.60	34.79	0.19	2.90	134	0.57
1114	3.98	34.63	1.57	3.36	58	400	9.06	34.71	0.30	3.10	117	0.70
						500	8.06	34.62	0.58	3.17	108	0.83
						600	7.08	34.57	0.87	3.24	97	0.93
						700	5.93	34.56	1.10	3.33	84	1.03
						800	5.30	34.56	1.25	3.37	77	1.12
						1000	4.59	34.58	1.52	3.38	67	1.29

F-57

SPENCER F. BAIRD; November 23, 1955; 0110 GCT; 4°02.5'S, 84°11'W; sounding, 1770 fm; wind, 200°, force 2; weather, cloudy; sea, smooth; wire angle, 13°.

0	18.98	34.90	5.11		300	0	18.98	34.90	5.11		299	0.00
24	18.74	34.90	5.19		294	10	18.92	34.90	5.15		298	0.03
48	16.21	34.99	3.02		230	20	18.82	34.90	5.18		296	0.06
97	13.91	34.96	1.33		183	30	18.49	34.91	5.08		287	0.09
194	13.06	34.88	0.47		173	50	16.08	34.99	2.90		226	0.14
290	10.65	34.74	0.10		139	75	14.34	34.98	1.65		191	0.19
376	9.39	34.66	0.18		124	100	13.86	34.95	1.27		183	0.24
547	7.48	34.56	0.55		104	150	13.39	34.91	0.80		176	0.33
736	5.84	34.50	0.86		88	200	12.94	34.88	0.43		170	0.42
926	5.08	34.52	1.24		77	250	11.99	34.84	0.20		156	0.50
1117	4.15	34.54	1.46		67	300	10.44	34.73	0.10		137	0.58
1401	3.37	34.54	1.84		59	400	9.04	34.65	0.23		121	0.71
1862	2.44	34.61	2.20		46	500	7.92	34.59	0.44		108	0.84
2782	1.80	34.63	2.96		39	600	6.98	34.53	0.67		99	0.95
						700	6.09	34.51	0.83		91	1.05
						800	5.49	34.51	1.01		83	1.15
						1000	4.73	34.53	1.35		73	1.32
						1200	3.87	34.54	1.57		64	1.49
						1500	3.14	34.56	1.89		56	1.70
						2000	2.28	34.62	2.32		43	2.01
						2500	1.93	34.63	2.71		41	2.25

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; November 28, 1955; 0240, 0341 GCT; 0°00', 91°41'W; sounding, 1300 fm; wind, 210°, force 2; weather, cloudy; sea, smooth; wire angle, 18°, 10°.

F-58

0	19.37	34.56	5.64	0.49	333	0	19.37	34.56	5.64	0.49	333	0.00
5	19.31	34.54	5.50	0.53	334	10	16.53	34.95	4.28	0.88	238	0.03
9	18.61	34.67	5.92	0.45	307	20	13.60	34.97	2.57	1.69	176	0.05
11	14.46	34.93	2.72	1.60	197	30	13.46	34.95	2.49	1.72	175	0.07
13	13.90	34.93	2.40	1.76	186	50	13.32	34.93	2.40	1.75	174	0.10
16	13.74	34.96	2.61	1.71	180	75	13.18	34.92	2.34	1.76	172	0.14
20	13.60	34.97	2.57	1.69	176	100	12.98	34.92	2.33	1.77	168	0.19
62	13.27	34.92	2.36	1.76	174	150	12.82	34.90	2.30	1.81	167	0.27
124	12.87	34.92	2.33	1.78	166	200	12.77	34.89	2.28	1.83	166	0.35
178	12.80	34.90	2.31	1.82	166	250	12.16	34.87	1.18	2.42	156	0.43
253	12.07	34.87	1.11	2.50	156	300	10.19	34.73	0.57	2.98	132	0.52
292	10.34	34.74	0.58	2.94	134	400	9.22	34.71	0.55	3.11	118	0.64
						500	7.95	34.61	0.82	3.24	107	0.76
370	9.59	34.71	0.54	3.09	124	600	7.27	34.58	1.02	3.30	100	0.88
442	8.38	34.65	0.63	3.18	110	700	6.21	34.56	1.20	3.34	88	0.97
526	7.90	34.60	0.86	3.25	107	800	5.74	34.54	1.37	3.32	83	1.08
632	6.68	34.58	1.07	3.34	92	1000	4.48	34.56	1.72	3.27	68	1.24
782	5.84	34.54	1.33	3.32	85							
938	4.72	34.56	1.67	3.25	71							
1146	4.29	34.56	1.75	3.33	66							

SPENCER F. BAIRD; November 28, 1955; 1226 GCT; 1°06'N, 91°30.5'W; sounding, 1160 fm; wind, 225°, force 3; weather, cloudy; sea, slight; wire angle, 23°.

F-59

0	22.65	33.95	4.72	0.49	463	0	22.65	33.95	4.72	0.49	463	0.00
9	22.65	33.95	4.86	0.55	463	10	22.64	33.95	4.85	0.55	462	0.05
18	22.41	33.96	4.79	0.55	456	20	22.21	33.98	4.80	0.56	449	0.09
27	20.11	34.23	4.64	0.91	377	30	19.69	34.34	4.50	0.99	357	0.13
41	15.41	34.97	1.78	1.93	214	50	14.68	34.97	1.48	2.00	198	0.19
45	14.98	34.97	1.39	2.03	205	75	13.72	34.96	2.12	1.94	179	0.23
49	14.72	34.97	1.47	1.99	198	100	13.63	34.96	2.17	1.96	177	0.28
58	14.24	34.97	1.61	2.04	189	150	13.39	34.93	2.10	2.00	175	0.37
67	13.82	34.97	1.99	1.93	181	200	12.75	34.91	1.49	2.17	164	0.45
98	13.64	34.96	2.17	1.95	178	250	12.36	34.89	1.14	2.30	158	0.54
245	12.42	34.90	1.21	2.28	159	300	10.49	34.76	0.33	2.86	135	0.62
288	11.05	34.81	0.40	2.72	142	400	9.22	34.72	0.39	3.07	118	0.75
354	9.65	34.73	0.33	3.02	124	500	8.16	34.63	0.65	3.17	109	0.87
417	9.04	34.71	0.44	3.09	117	600	7.48	34.61	0.92	3.15	101	0.98
490	8.24	34.63	0.63	3.17	110	700	6.74	34.57	0.93	3.18	94	1.09
592	7.52	34.61	0.79	3.15	101	800	5.96	34.56	1.13	3.25	84	1.19
746	6.38	34.56	0.90	3.21	90	1000	4.47	34.56	1.59	3.28	68	1.36
898	4.90	34.54	1.59	3.30	74							
1102	4.20	34.56	1.58	3.28	65							

SIO	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
EASTROPIC	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-60

SPENCER F. BAIRD; November 28, 1955; 2010 GCT; 1°57.5'N, 91°17'W; sounding, 1035 fm; wind, 205°, force 2; weather, cloudy; sea, slight; wire angle, 08°.

0	24.10	33.78	5.10	0.50	515	0	24.10	33.78	5.10	0.50	515	0.00
15	24.00	33.80	4.79	0.52	512	10	24.03	33.79	4.89	0.51	512	0.05
26	23.97	33.82	5.02	0.51	508	20	23.99	33.81	4.89	0.51	509	0.10
29	23.95	33.82	5.10	0.51	508	30	23.89	33.82	5.03	0.51	505	0.15
32	23.75	33.83	4.89	0.61	502	50	14.98	34.97	2.09	1.88	203	0.22
34	19.81	34.28	3.26	1.25	365	75	14.56	34.97	2.02	1.92	195	0.27
38	16.12	34.85	1.79	1.88	237	100	14.21	34.97	1.80	1.99	188	0.32
43	15.19	34.96	2.10	1.86	210	150	13.38	34.93	1.30	2.25	175	0.41
96	14.28	34.97	1.84	1.97	190	200	12.56	34.89	1.10	2.39	162	0.50
172	13.04	34.92	1.25	2.32	169	250	11.69	34.82	0.87	2.54	152	0.59
242	11.85	34.84	0.91	2.50	154	300	10.33	34.74	0.70	2.81	134	0.66
289	10.62	34.76	0.78	2.74	138	400	8.89	34.65	0.47	3.17	118	0.79
340	9.58	34.72	0.52	3.02	123	500	8.04	34.64	0.68	3.18	106	0.91
412	8.80	34.65	0.46	3.19	117	600	7.28	34.60	0.94	3.21	99	1.02
484	8.18	34.65	0.63	3.19	107	700	6.42	34.57	1.02	3.25	90	1.12
584	7.40	34.60	0.92	3.21	101	800	5.67	34.56	1.22	3.18	81	1.22
730	6.18	34.56	1.03	3.26	87	1000	4.58	34.56	1.54	3.13	69	1.39
871	5.24	34.56	1.54	3.12	76							
1073	4.34	34.56	1.54	3.14	67							

F-61

SPENCER F. BAIRD; November 29, 1955; 0408, 0455 GCT; 2°50.5'N, 90°51.5'W; sounding, 1310 fm; wind, 210°, force 4; weather, cloudy; sea, slight; wire angle, 05°, 05°.

0	25.03	33.64	4.82	0.37	553	0	25.03	33.64	4.82	0.37	554	0.00
15	25.05	33.61	4.79	0.40	554	10	25.04	33.62	4.80	0.40	553	0.06
25	25.04	33.62	4.82	0.40	552	20	25.04	33.62	4.80	0.40	553	0.11
30	24.85	33.68	4.81	0.40	544	30	24.85	33.68	4.81	0.40	543	0.17
35	24.38	33.94	4.89	0.40	512	50	18.35	34.67	2.22	1.66	301	0.25
40	21.30	34.25	3.64	0.96	404	75	15.54	34.88	2.11	1.82	222	0.32
45	19.61	34.52	2.78	1.36	343	100	14.76	34.94	2.04	1.93	202	0.37
55	18.31	34.67	2.20	1.66	301	150	13.77	34.92	1.45	2.11	183	0.46
						200	12.98	34.89	0.93	2.28	170	0.55
74	15.57	34.88	2.11	1.81	224	250	12.26	34.87	0.50	2.45	158	0.64
151	13.73	34.92	1.43	2.11	183	300	11.27	34.78	0.19	2.64	147	0.72
242	12.40	34.88	0.58	2.40	160	400	9.01	34.64	0.42	3.02	121	0.86
290	11.48	34.79	0.19	2.60	154	500	7.89	34.63	0.41	3.24	105	0.98
342	10.13	34.71	0.53	2.84	133	600	7.28	34.60	0.56	3.30	98	1.10
415	8.86	34.63	0.37	3.05	119	700	6.38	34.56	0.79	3.32	90	1.19
488	8.03	34.63	0.38	3.22	106	800	5.52	34.54	1.11	3.30	82	1.29
588	7.31	34.60	0.56	3.30	99	1000	4.59	34.54	1.55	3.27	72	1.47
730	6.02	34.55	0.88	3.31	86							
876	5.25	34.54	1.30	3.30	78							
1083	4.18	34.55	1.57	3.26	66							

F-62

SPENCER F. BAIRD; November 29, 1955; 1305 GCT; 3°49'N, 90°36.5'W; sounding, 1350 fm; wind, 215°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	25.66	33.43	4.75	0.40	585	0	25.66	33.43	4.75	0.40	584	0.00
20	25.66	33.44	4.79	0.40	584	10	25.66	33.44	4.77	0.40	583	0.06
40	25.65	33.45	4.78	0.46	583	20	25.66	33.44	4.79	0.40	583	0.12
49	19.19	34.48	2.65	1.49	335	30	25.66	33.44	4.78	0.43	583	0.18
54	17.33	34.81	1.94	1.85	267	50	19.04	34.50	2.58	1.52	330	0.27
59	16.66	34.88	2.16	1.76	247	75	15.14	34.94	1.83	1.91	210	0.33
64	16.08	34.93	1.84	1.88	231	100	14.33	34.92	1.37	2.05	194	0.38
68	15.64	34.96	2.06	1.83	219	150	13.49	34.91	1.42	2.18	178	0.48
89	14.62	34.92	1.41	2.02	200	200	12.89	34.90	1.17	2.38	168	0.56
160	13.40	34.91	1.40	2.20	177	250	12.04	34.85	0.56	2.72	156	0.65
244	12.18	34.85	0.61	2.67	158	300	10.92	34.78	0.31	2.97	142	0.73
292	11.11	34.78	0.32	2.94	144	400	9.39	34.68	0.25	3.26	123	0.87
345	10.18	34.74	0.26	3.12	132	500	7.92	34.61	0.33	3.53	107	0.99
416	9.12	34.66	0.25	3.32	121	600	6.99	34.58	0.44	3.62	96	1.11
488	8.05	34.62	0.32	3.51	108	700	6.17	34.56	0.65	3.61	87	1.20
589	7.10	34.58	0.42	3.62	98	800	5.38	34.57	0.98	3.56	78	1.29
737	5.84	34.56	0.77	3.60	84	1000	4.48	34.58	1.45	3.52	66	1.47
880	4.90	34.58	1.21	3.53	71							
1084	4.18	34.58	1.55	3.50	63							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

S10

EASTROPIC

SPENCER F. BAIRD; November 29, 1955; 2148 GCT; 5°00'N, 90°19.5'W; sounding, 1770 fm; wind, 210°, force 4; weather, moderate drizzle; sea, slight; wire angle, 30°.

F-63

0	26.08	33.39	4.63	0.33	601	0	26.08	33.39	4.63	0.33	601	0.00
19	26.03	33.41	4.67	0.32	597	10	26.05	33.40	4.65	0.32	599	0.06
35	25.99	33.40	4.65	0.33	597	20	26.02	33.41	4.67	0.32	597	0.12
41	22.53	34.34	3.09	1.30	431	30	26.00	33.40	4.66	0.32	597	0.18
45	21.29	34.51	3.02	1.41	386	50	19.33	34.62	2.21	1.88	329	0.27
49	19.44	34.61	2.24	1.86	332	75	14.64	34.92	1.13	2.30	201	0.34
53	18.73	34.63	1.99	1.96	313	100	13.74	34.94	1.07	2.32	182	0.39
58	17.41	34.67	1.70	2.08	279	150	12.96	34.87	1.28	2.21	171	0.47
64	15.68	34.70	1.37	2.19	239	200	12.48	34.86	1.05	2.30	163	0.56
100	13.74	34.94	1.07	2.32	181	250	11.62	34.81	0.57	2.57	151	0.65
148	13.01	34.87	1.28	2.20	172	300	10.58	34.76	0.17	2.97	137	0.72
292	10.73	34.77	0.17	2.94	138	400	9.14	34.70	0.24	3.22	118	0.86
340	9.88	34.70	0.25	3.12	130	500	7.84	34.61	0.19	3.48	106	0.98
407	9.06	34.70	0.24	3.25	117	600	6.90	34.59	0.46	3.55	94	1.09
488	8.00	34.61	0.18	3.45	108	700	6.14	34.57	0.69	3.52	87	1.18
582	7.03	34.59	0.40	3.55	96	800	5.46	34.56	0.85	3.57	78	1.28
728	5.91	34.56	0.75	3.53	84	1000	4.57	34.56	1.09	3.52	69	1.45
879	5.07	34.56	0.91	3.60	75							
1090	4.22	34.56	1.32	3.37	66							

SPENCER F. BAIRD; November 30, 1955; 0803 GCT; 6°04.5'N, 89°56.5'W; sounding, 1970 fm; wind, 190°, force 3; weather, violent rain shower; sea, slight; wire angle, 13°.

F-64

0	26.41	33.17	5.00	0.37	626	0	26.41	33.17	5.00	0.37	626	0.00
14	26.44	33.26	5.05	0.35	621	10	26.43	33.23	5.04	0.36	621	0.06
28	26.09	33.39	5.05	0.35	601	20	26.36	33.29	5.05	0.35	616	0.12
31	25.96	33.42	4.64	0.41	594	30	25.98	33.42	4.69	0.39	595	0.18
34	25.62	33.49	4.49	0.51	580	50	17.03	34.66	1.64	1.93	272	0.27
37	22.82a)	34.23	3.41	1.15	447	75	14.52	34.97	1.44	2.13	194	0.33
40	20.46	34.54	2.70	1.61	362	100	13.83	34.95	1.20	2.23	182	0.37
43	19.79	34.56	2.16	1.84	344	150	12.99	34.88	0.99	2.34	171	0.46
57	15.78	34.92	1.72	2.00	225	200	12.43	34.85	0.87	2.43	162	0.55
93	13.98	34.96	1.24	2.21	184	250	11.95	34.83	0.72	2.55	156	0.63
235	12.12	34.84	0.75	2.50	158	300	11.17	34.78	0.51	2.70	144	0.71
282	11.46	34.79	0.57	2.66	150	400	9.77	34.70	0.34	2.97	128	0.85
327	10.77	34.75	0.47	2.76	140	500	8.11	34.63	0.12	3.29	108	0.98
399	9.80	34.70	0.35	2.96	128	600	6.84	34.59	0.24	3.58	93	1.09
472	8.55	34.65	0.12	3.16	112	700	6.01	34.57	0.50	3.53	84	1.19
565	7.25	34.60	0.16	3.58	98	800	5.41	34.57	0.73	3.54	78	1.28
705	5.96	34.57	0.52	3.53	84	1000	4.64	34.56	1.01	3.59	70	1.44
947	4.78	34.56	0.95	3.59	71	1200	4.16	34.58	1.23	3.53	63	1.60
2907b)	1.84	34.65	2.66	3.00	33	1500	3.62	34.59	1.52	3.43	57	1.81
						2000	2.89	34.61	1.94	3.28	49	2.14
						2500	2.36	34.63	2.29	3.14	44	2.44

a) Mean value of 22.74 and 22.90°C.

b) Data obtained at this depth with Van Dorn sampler.

SIO	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
EASTROPIC	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m
F-65	SPENCER F. BAIRD; November 30, 1955; 1641 GCT; 7°01.5'N, 89°39'W; sounding, 2000 fm; wind, 360°, force 3; weather, cloudy; sea, slight; wire angle, 20°.												
	0	26.57	33.21	4.69	0.49	628	0	26.57	33.21	4.69	0.49	627	0.00
	10	26.50	33.22	4.65	0.49	625	10	26.50	33.22	4.65	0.49	625	0.06
	19	26.46	33.22	4.66	0.50	624	20	26.44	33.23	4.65	0.50	624	0.12
	22	26.01	33.29	4.48	0.54	606	30	22.04	34.29	2.44	1.57	422	0.18
	25	25.10	33.58	3.98	0.77	558	50	16.07	34.73	1.26	2.33	244	0.24
	30	22.04	34.29	2.44	1.57	422	75	13.32	34.79	0.68	2.40	184	0.30
	43	17.84	34.61	1.45	2.12	294	100	12.57	34.81	1.35	2.25	169	0.34
	61	14.44	34.79	0.46	2.55	206	150	12.29	34.84	0.91	2.38	161	0.42
	91	12.66	34.80	1.36	2.23	171	200	11.78	34.81	0.77	2.43	154	0.51
	127	12.40	34.85	0.96	2.35	162	250	11.16	34.77	0.56	2.52	146	0.59
	248	11.18	34.77	0.56	2.50	146	300	10.64	34.74	0.63	2.67	139	0.66
	293	10.76	34.75	0.63	2.67	140	400	9.34	34.68	0.46	3.00	123	0.80
	347	9.98	34.70	0.52	2.86	131	500	8.20	34.63	0.12	3.37	109	0.92
	417	9.14	34.66	0.43	3.05	121	600	6.98	34.61	0.32	3.50	94	1.03
	495	8.28	34.63	0.12	3.36	110	700	6.18	34.56	0.37	3.47	87	1.13
	592	7.06	34.61	0.29	3.50	95	800	5.54	34.58	0.53	3.51	78	1.22
	735	5.91	34.56	0.41	3.48	84	1000	4.62	34.59	0.95	3.48	67	1.39
	886	5.10	34.60	0.73	3.56	72							
	1088	4.27	34.58	1.07	3.36	65							
F-66	SPENCER F. BAIRD; December 1, 1955; 0340 GCT; 8°03.5'N, 89°43'W; sounding, 1855 fm; wind, 035°, force 4; weather, cloudy; sea, moderate; wire angle, 48°.												
	0	26.19	33.28	5.02	0.61	612	0	26.19	33.28	5.02	0.61	612	0.00
	8	26.16	33.30	4.97	0.63	609	10	26.15	33.30	4.92	0.63	609	0.06
	17	25.90	33.31	4.53	0.66	598	20	22.28	34.19	2.60	1.52	435	0.11
	19	24.48	33.55	4.04	0.93	543	30	15.96	34.73	0.84	2.43	243	0.15
	21	20.09	34.53	1.71	1.96	354	50	13.78	34.81	0.58	2.45	192	0.19
	24	18.82	34.60	1.40	2.12	318	75	12.84	34.81	0.62	2.34	173	0.24
	28	16.60	34.70	0.97	2.38	259	100	12.41	34.81	0.70	2.32	165	0.29
	34	15.53	34.75	0.76	2.45	232	150	11.92	34.81	0.85	2.36	156	0.37
	46	14.12	34.81	0.58	2.48	198	200	11.54	34.81	0.89	2.38	150	0.45
	107	12.34	34.81	1.05	2.33	164	250	11.01	34.79	0.33	2.74	142	0.53
	177	11.78	34.81	0.87	2.36	154	300	10.36	34.74	0.38	2.76	135	0.60
	212	11.42	34.81	0.90	2.43	148	400	9.07	34.66	0.28	3.08	120	0.74
	249	11.01	34.78	0.33	2.74	143	500	7.80	34.61	0.16	3.23	105	0.86
	298	10.39	34.74	0.38	2.76	135	600	6.72	34.57	0.22	3.40	94	0.96
	356	9.60	34.70	0.29	2.95	125	700	6.09	34.56		3.46	86	1.06
	433	8.66	34.64	0.28	3.17	115	800	5.58	34.57		3.43	79	1.16
	546	7.21	34.58	0.12	3.31	99	1000						(1.32)
	666	6.30	34.56	0.34	3.47	89							
	846	5.34	34.58	-	3.42	76							
F-67	SPENCER F. BAIRD; December 1, 1955; 1317, 1351 GCT; 8°53.5'N, 89°35.5'W; sounding, 1885 fm; wind, 040°, force 4; weather, cloudy; sea, moderate; wire angle, 45°, 45°.												
	0	24.96	33.94	4.22	1.08	528	0	24.96	33.94	4.22	1.08	528	0.00
	8	24.94	33.92	4.26	1.08	529	10	24.87	33.99	4.24	1.09	522	0.05
	16	18.33	34.64	1.75	1.94	303	20	16.88	34.74	1.30	2.04	263	0.09
	19	17.35	34.72	1.43	2.03	274	30	15.62	34.80	1.36	2.07	230	0.12
	20	16.88	34.74	1.30	2.04	262	50	14.04	34.89	0.92	2.23	191	0.16
	23	16.34	34.77	1.16	2.09	248	75	13.45	34.91	0.77	2.26	178	0.20
	28	15.79	34.78	1.40	2.05	235	100	13.04	34.91	0.61	2.29	170	0.25
	33	15.47	34.81	1.23	2.10	226	150	12.28	34.87	0.53	2.47	159	0.33
	44	14.32	34.88	0.97	2.22	197	200	11.59	34.81	0.62	2.48	151	0.41
	109	12.92	34.91	0.53	2.31	167	250	11.03	34.78	0.83	2.45	142	0.49
	177	11.93	34.84	0.55	2.50	154	300	10.57	34.74	0.93	2.50	137	0.56
	212	11.39	34.79	0.67	2.47	148	400	9.48	34.71	0.28	3.01	123	0.70
	253	11.00	34.78	0.89	2.45	142	500	8.11	34.63	0.13	3.19	108	0.81
	299	10.58	34.74	0.94	2.50	138	600	6.89	34.60	0.14	3.33	93	0.91
	347	10.08	34.74	0.49	2.68	130	700	6.18	34.58	0.30	3.45	86	1.01
							800	5.54	34.56	0.53	3.40	80	1.10
	434	9.02	34.67	0.19	3.14	119	1000						(1.27)
	561	7.30	34.61	0.12	3.26	98							
	698	6.19	34.58	0.29	3.45	86							
	888	5.00	34.56	0.82	3.20	74							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; December 2, 1955; 0108 GCT; 10°02'N, 89°06.5'W; sounding, 1855 fm; wind, 015°, force 2; weather, cloudy; sea, slight; wire angle, 13°.

F-68

0	25.22	34.04	4.53	1.29	528	0	25.22	34.04	4.53	1.29	529	0.00
10	23.60	34.13	4.02	1.32	475	10	23.60	34.13	4.02	1.32	476	0.05
14	22.46	34.23	3.25	1.48	438	20	19.88	34.55	1.66	1.84	347	0.09
19	20.01	34.54	1.78	1.81	351	30	17.90	34.70	1.06	2.10	288	0.12
24	18.98	34.60	1.22	2.04	320	50	16.10	34.83	0.75	2.20	238	0.18
30	17.90	34.70	1.06	2.10	288	75	14.74	34.88	0.53	2.31	205	0.23
42	16.67	34.79	0.87	2.15	254	100	13.73	34.88	0.39	2.39	185	0.29
61	15.56	34.87	0.66	2.25	224	150	12.81	34.87	0.15	2.57	168	0.37
103	13.62	34.88	0.37	2.41	183	200	12.18	34.82	0.13	2.61	161	0.46
154	12.72	34.87	0.13	2.58	166	250	11.56	34.79	0.22	2.67	152	0.55
261	11.43	34.78	0.22	2.68	150	300	11.09	34.78	0.19	2.73	143	0.62
307	11.02	34.78	0.17	2.75	143	400	9.70	34.70	0.12	3.02	127	0.76
363	10.24	34.73	0.12	2.90	133	500	8.10	34.61	0.10	3.37	109	0.89
437	9.21	34.67	0.11	3.14	122	600	6.83	34.61	0.11	3.46	92	1.00
516	7.81	34.61	0.10	3.40	105	700	6.10	34.57	0.13	3.50	86	1.10
616	6.70	34.60	0.11	3.47	91	800	5.46	34.57	0.24	3.57	79	1.19
768	5.66	34.55	0.21	3.54	80	1000	4.51	34.56	0.49	3.61	69	1.35
921	4.86	34.56	0.37	3.64	72							
1127	4.04	34.55	0.78	3.46	65							

SPENCER F. BAIRD; December 2, 1955; 0955, 1110 GCT; 11°02'N, 88°46'W; sounding, 1800 fm; wind, 330°, force 2; weather, cloudy; sea, slight; wire angle, 06°, 10°.

F-69

0	26.97	32.71	4.86	0.28	676	0	26.97	32.71	4.86	0.28	675	0.00
10	27.04	32.88	4.79	0.29	666	10	27.04	32.88	4.79	0.29	666	0.07
19	26.89	33.27	4.60	0.45	634	20	26.88	33.27	4.58	0.47	633	0.13
28	26.51	33.26	4.40	0.54	623	30	25.45	33.38	3.68	0.80	582	0.19
31	24.87	33.47	3.28	0.93	560	50	17.90	34.71	0.96	2.11	288	0.28
37	21.39	34.22	1.64	1.67	410	75	14.95	34.89	0.41	2.41	209	0.34
46	19.48	34.52	1.28	1.93	340	100	13.62	34.90	0.35	2.50	182	0.39
55	16.89	34.79	0.66	2.24	259	150	12.72	34.88	0.24	2.75	166	0.47
73	15.14	34.88	0.00	2.42	214	200	12.09	34.80	0.22	2.88	160	0.56
92	13.82	34.90	0.35	2.46	186	250	11.59	34.79	0.32	2.88	152	0.64
						300	10.97	34.76	0.43	2.92	143	0.72
235	11.76	34.79	0.28	2.90	155	400	9.55	34.70	0.09	3.37	105	0.86
284	11.18	34.79	0.44	2.85	144	500	8.19	34.62	0.08	3.68	110	0.99
334	10.52	34.74	0.23	3.10	137	600	7.04	34.61	0.10	3.79	95	1.10
401	9.52	34.70	0.09	3.38	124	700	6.27	34.59	0.13	3.77	86	1.20
475	8.59	34.63	0.08	3.60	115	800	5.47	34.58	0.22	3.73	77	1.30
572	7.26	34.61	0.10	3.78	98	1000	4.57	34.58	0.40	3.67	68	1.46
722	6.01	34.58	0.15	3.75	84							
861	5.18	34.58	0.26	3.72	74							
1063	4.28	34.58	0.50	3.64	65							

SPENCER F. BAIRD; December 2, 1955; 2005 GCT; 11°48'N, 88°25'W; sounding, 2400 fm; wind, calm; weather, cloudy; sea, calm; wire angle, 00°.

F-70

0	28.09	32.90	4.80	0.42	697	0	28.09	32.90	4.80	0.42	696	0.00
19	27.36	32.88	4.80	0.40	676	10	27.52	32.89	4.80	0.40	680	0.07
38	26.08	33.40	4.39	0.89	600	20	27.34	32.89	4.79	0.41	673	0.14
43	24.84	33.50	3.76	1.03	556	30	27.23	32.91	4.78	0.43	668	0.20
48	21.26	34.30	2.36	1.67	400	50	21.11	34.32	2.32	1.70	394	0.31
53	20.55	34.43	2.09	1.84	372	75	14.32	34.86	0.16	2.79	200	0.38
57	17.17	34.74	1.01	2.36	268	100	13.67	34.84	0.28	2.77	187	0.43
62	15.50	34.83	0.42	2.70	225	150	12.60	34.87	0.30	2.74	164	0.51
66	14.73	34.86	0.14	2.78	207	200	11.94	34.84	0.28	2.86	155	0.59
147	12.63	34.87	0.30	2.74	165	250	11.31	34.77	0.22	2.91	149	0.67
240	11.44	34.78	0.22	2.91	150	300	10.70	34.75	0.16	2.99	140	0.75
288	10.84	34.75	0.15	2.96	142	400	9.37	34.69	0.17	3.39	122	0.89
341	10.23	34.74	0.19	3.15	133	500	7.90	34.61	0.13	3.59	107	1.01
413	9.14	34.67	0.13	3.43	120	600	6.84	34.60	0.27	3.71	93	1.12
486	8.11	34.61	0.13	3.56	109	700	6.10	34.56	0.22	3.74	86	1.22
588	6.96	34.60	0.27	3.70	94	800	5.51	34.56	0.22	3.79	80	1.31
731	5.94	34.56	0.20	3.75	84	1000	4.56	34.56	0.47	3.74	68	1.48
876	5.16	34.56	0.26	3.80	75							
1078	4.26	34.56	0.71	3.68	66							

317

SIO EASTROPIC	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P μg at/L	δ_T 10 ⁻⁵ cm ³ /g	Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P μg at/L	δ_T 10 ⁻⁵ cm ³ /g	ΔD dyn m
F-71	SPENCER F. BAIRD; December 3, 1955; 1050 GCT; 12°51.5'N, 87°53'W; sounding, 23 fm; wind, 090°, force 2; weather, intermittent slight drizzle; sea, calm; wire angle, 03°.												
	0	28.14	32.57	4.82	0.29	722	0	28.14	32.57	4.82	0.29	723	0.00
	10	28.16	32.83	4.81	0.29	704	10	28.16	32.83	4.81	0.29	703	0.07
	20	26.84	33.55	5.13	0.63	612	20	26.84	33.55	5.13	0.63	612	0.14
	23	26.06	33.68	4.22	0.97	579	30	22.00	34.23	2.28	1.67	424	0.19
	26	24.58	33.68	2.31	1.49	536	50	(19.40)a)					
	29	22.38	34.14	2.40	1.60	442							
	32	21.65	34.29	2.09	1.70	412							
	35	21.26	34.40	1.88	1.72	394							
	38	20.16	34.50	1.22	2.13	358							
F-72	SPENCER F. BAIRD; December 4, 1955; 1702 GCT; 12°58.5'N, 87°51'W; sounding, missing; wind, missing; weather, missing; sea, missing; wire angle, 00°.												
	0	28.43	32.74	4.79		719	0	28.43	32.74	4.79		720	0.00
	8	28.41	32.79	4.83		715	10	28.40	32.80	4.82		715	0.07
	16	25.43	33.49	2.88		574	20	(24.00)a)					
							30	(21.48)a)					
F-73	SPENCER F. BAIRD; December 5, 1955; 0330 GCT; 12°33'N, 88°01'W; sounding, 45 fm; wind, missing; weather, missing; sea, missing; wire angle, 11°.												
	0	27.16	32.98	4.74		663	0	27.16	32.98	4.74		663	0.00
	20	27.11	32.97	4.96		664	10	27.12	32.97	4.85		664	0.07
	39	24.38	33.58	3.39		537	20	27.11	32.97	4.96		664	0.13
	59	15.90	34.78	0.71		237	30	26.90	33.09	4.74		647	0.20
							50	19.70	34.55	1.31		342	0.30
							75	(14.69)a)					
F-74	SPENCER F. BAIRD; December 5, 1955; 0827 GCT; 12°09.5'N, 88°10.5'W; sounding, missing; wind, missing; weather, missing; sea, missing; wire angle, 25°.												
	0	27.14	32.84	4.88		672	0	27.14	32.84	4.88		672	0.00
	27	27.14	32.88	4.88		668	10	27.14	32.85	4.88		671	0.07
	42	26.64	33.18	4.60		632	20	27.14	32.87	4.88		670	0.13
	51	22.28	34.09	2.64		442	30	27.13	32.94	4.87		662	0.20
	60	16.17	34.77	1.26		244	50	22.85	33.93	2.82		470	0.31
	70	15.26	34.84	0.81		220	75	15.00	34.85	0.70		213	0.40
	80	14.32	34.87	0.39		198	100	13.69	34.88	0.22		184	0.45
	90	13.92	34.89	0.22		188	150	13.07	34.85	0.34		175	0.54
	196	12.68	34.84	0.40		169	200	12.63	34.84	0.39		167	0.62
	272	11.32	34.76	0.20		150	250	11.80	34.82	0.25		153	0.70
	365	9.13	34.64	0.19		122	300	10.70	34.72	0.20		142	0.79
	458	8.13	34.61	0.12		110	400	8.61	34.63	0.17		115	0.92

a) Extrapolated value based on bathythermogram readings.

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; December 5, 1955; 1430 GCT; 11°51'N, 88°16.5'W; sounding, missing; wind, missing; weather, missing; sea, missing; wire angle, 12°.

F-75

0	27.13	33.03	4.68		658	0	27.13	33.03	4.68		658	0.00
25	27.14	33.03	4.61		658	10	27.13	33.03	4.65		658	0.07
48	26.42	-	4.64		-	20	27.14	33.03	4.62		658	0.13
95	13.57	34.83	0.22		185	30	27.14	33.03	4.62		658	0.20
141	12.68	34.85	0.42		167	50	22.50	34.03	2.78		453	0.31
231	11.74	34.83	0.22		152	75	14.04	34.85	0.24		194	0.39
466	7.98	34.60	0.08		108	100	13.47	34.83	0.22		183	0.44
702	6.16	34.58	0.13		86	150	12.55	34.85	0.42		165	0.53
938	4.94	34.57	0.31		72	200	12.00	34.84	0.30		156	0.61
1405	3.37	34.57	0.28		57	250	11.59	34.80	0.20		152	0.69
1870	2.47	34.65	1.80		43	300	10.80	34.75	0.18		142	0.76
2337	1.91	34.62	2.39		41	400	8.64	34.63	0.18		116	0.90
2799a)	1.84	34.63	2.58		39	500	7.68	34.60	0.08		103	1.02
						600	6.80	34.59	0.12		93	1.13
						700	6.18	34.58	0.13		86	1.23
						800	5.70	34.58	0.18		80	1.32
						1000	4.72	34.57	0.33		70	1.49
						1200	3.96	34.57	0.33		63	1.64
						1500	3.13	34.60	0.37		52	1.85
						2000	2.29	34.64	2.07		43	2.14
						2500	1.86	34.62	2.45		40	2.39

SPENCER F. BAIRD; December 7, 1955; 0340 GCT; 12°24.5'N, 89°06'W; sounding, 1000 fm; wind, 090°, force 2; weather, cloudy; sea, smooth; wire angle, 11°.

F-76

0	27.42	33.33	4.96	0.65	644	0	27.42	33.33	4.96	0.65	644	0.00
25	27.29	33.39	4.65	0.72	637	10	27.40	33.34	4.84	0.66	643	0.06
34	24.54	33.73	3.85	1.26	531	20	27.37	33.35	4.73	0.67	642	0.13
45	18.40	34.52	1.92	2.10	313	30	25.95	33.55	4.23	1.04	584	0.19
50	15.10	34.81	0.74	2.52	218	50	15.10	34.81	0.74	2.52	218	0.27
55	14.51	34.85	0.53	2.55	203	75	13.60	34.85	0.22	2.60	185	0.32
60	14.25	34.85	0.44	2.57	198	100	13.29	34.85	0.22	2.61	179	0.37
64	13.92	34.85	0.37	2.59	191	150	12.75	34.85	0.34	2.62	169	0.45
74	13.62	34.85	0.22	2.59	185	200	12.21	34.82	0.31	2.66	161	0.54
152	12.72	34.85	0.36	2.61	168	250	11.54	34.79	0.18	2.74	151	0.62
237	11.78	34.81	0.21	2.71	154	300	10.60	34.71	0.15	2.88	141	0.70
286	10.84	34.72	0.14	2.86	144	400	8.89	34.66	0.13	3.28	118	0.83
341	9.98	34.71	0.24	2.96	130	500	7.64	34.60	0.13	3.42	104	0.96
410	8.65	34.63	0.13	3.32	116	600	6.70	34.58	0.28	3.47	92	1.07
479	7.88	34.60	0.10	3.42	107	700	6.10	34.57	0.33	3.51	86	1.16
578	6.83	34.58	0.27	3.46	94	800	5.54	34.55	0.36	3.57	81	1.25
724	5.99	34.56	0.34	3.52	85	1000	4.67	34.55	0.52	3.56	71	1.42
868	5.20	34.54	0.41	3.59	78							
1072	4.40	34.56	0.55	3.54	67							

a) Unprotected thermometer failed; depth obtained by extrapolation of L-Z curve.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁵ cm ³ /g	dyn m

F-77

SPENCER F. BAIRD; December 7, 1955; 1115 GCT; 12°44'N, 90°01'W; sounding, 1000 fm; wind, 080°, force 1; weather, cloudy; sea, smooth; wire angle, 12°.

0	27.40	33.34	4.67	0.69	644	0	27.40	33.34	4.67	0.69	644	0.00
15	27.39	33.34	4.65	0.69	644	10	27.39	33.34	4.66	0.69	643	0.06
29	24.93	33.87	3.85	1.19	532	20	27.38	33.45	4.65	0.70	635	0.13
33	22.49	34.20	2.82	1.60	440	30	24.50	33.94	3.71	1.26	514	0.19
38	19.04	34.53	2.15	1.93	328	50	14.56	34.87	0.37	2.57	202	0.26
42	15.44	34.83	0.41	2.65	224	75	14.07	34.88	0.27	2.57	192	0.31
47	14.65	34.87	0.34	2.57	204	100	13.57	34.88	0.24	2.65	182	0.35
56	14.43	34.88	0.37	2.59	200	150	12.49	34.86	0.24	2.76	163	0.44
66	14.24	34.88	0.33	2.55	196	200	11.91	34.82	0.22	2.76	155	0.52
144	12.54	34.87	0.24	2.76	163	250	11.40	34.78	0.21	2.76	149	0.60
236	11.55	34.79	0.19	2.76	152	300	10.82	34.76	0.28	2.82	141	0.68
283	11.02	34.77	0.24	2.79	143	400	9.40	34.67	0.09	3.24	124	0.82
335	10.39	34.72	0.29	2.92	137	500	7.81	34.58	0.18	3.51	108	0.95
404	9.32	34.66	0.08	3.27	123	600	6.91	34.58	0.27	3.56	95	1.06
474	8.12	34.59	0.12	3.47	112	700	6.13	34.55	0.12	3.52	87	1.15
573	7.12	34.58	0.28	3.55	98	800	5.59	34.55	0.15	3.68	81	1.24
719	6.02	34.54	0.11	3.54	87	1000	4.71	34.55	0.30	3.57	71	1.41
862	5.28	34.56	0.19	3.74	77							
1060	4.42	34.54	0.40	3.38	69							

F-78

SPENCER F. BAIRD; December 7, 1955; 1834 GCT; 13°05'N, 90°54.5'W; sounding, 1080 fm; wind, 135°, force 2; weather, cloudy; sea, smooth; wire angle, 17°.

0	27.70	33.36	4.83	0.65	651	0	27.70	33.36	4.83	0.65	651	0.00
15	27.42	33.39	4.75	0.66	641	10	27.50	33.38	4.78	0.66	643	0.06
24	27.40	33.44	4.71	0.66	637	20	27.41	33.42	4.73	0.66	638	0.13
29	27.22	33.51	4.57	0.72	626	30	26.75	33.57	4.44	0.78	608	0.19
33	20.44	34.34	2.37	1.75	377	50	15.71	34.84	0.47	2.43	229	0.27
38	16.57	34.79	0.60	2.38	252	75	14.22	34.88	0.27	2.54	194	0.33
43	15.94	34.81	0.46	2.36	236	100	13.61	34.88	0.21	2.60	183	0.38
57	15.57	34.85	0.51	2.45	225	150	12.70	34.87	0.20	2.65	167	0.47
77	14.14	34.88	0.26	2.55	194	200	12.03	34.85	0.19	2.65	156	0.55
143	12.80	34.87	0.20	2.65	168	250	11.34	34.80	0.17	2.68	147	0.63
230	11.63	34.81	0.19	2.64	151	300	10.58	34.74	0.15	2.91	138	0.70
275	10.96	34.78	0.14	2.79	142	400	9.00	34.64	0.13	3.14	120	0.83
325	10.18	34.71	0.18	3.01	133	500	7.70	34.61	0.17	3.33	103	0.96
393	9.13	34.65	0.13	3.13	122	600	6.82	34.57	0.25	3.46	94	1.07
461	8.12	34.64	0.12	3.22	108	700	6.12	34.57	0.12	3.50	86	1.16
555	7.21	34.58	0.36	3.43	99	800	5.63	34.56	0.17	3.53	81	1.25
698	6.16	34.57	0.11	3.50	86	1000	4.71	34.58	0.29	3.63	69	1.42
839	5.48	34.56	0.22	3.54	79							
1042	4.59	34.59	0.31	3.64	67							

F-79

SPENCER F. BAIRD; December 8, 1955; 0219 GCT; 13°31'N, 92°02'W; sounding, 1600 fm; wind, 120°, force 2; weather, cloudy; sea, smooth; wire angle, 24°.

0	27.41	33.66	4.76	0.61	622	0	27.41	33.66	4.76	0.61	622	0.00
14	27.35	33.66	4.71	0.65	619	10	27.37	33.66	4.72	0.64	619	0.06
27	27.07	33.71	4.54	0.80	608	20	27.30	33.67	4.67	0.70	617	0.12
31	22.17	34.27	2.72	1.59	426	30	24.55	34.01	3.53	1.26	511	0.18
36	20.15	34.49	2.12	1.78	358	50	15.08	34.87	0.39	2.55	213	0.25
40	17.29	34.78	1.23	2.17	269	75	13.69	34.88	0.27	2.57	184	0.30
45	16.05	34.83	0.80	2.29	237	100	13.28	34.88	0.30	2.53	176	0.35
54	14.59	34.88	0.16	2.62	202	150	12.70	34.90	0.30	2.50	164	0.43
87	13.42	34.88	0.30	2.54	179	200	12.03	34.85	0.22	2.56	156	0.52
153	12.63	34.90	0.30	2.50	163	250	11.41	34.82	0.16	2.69	147	0.60
215	11.86	34.84	0.19	2.58	153	300	10.80	34.76	0.23	2.83	141	0.67
256	11.34	34.81	0.16	2.70	146	400	9.17	34.69	0.13	3.24	119	0.81
301	10.77	34.76	0.24	2.84	140	500	7.79	34.62	0.15	3.39	104	0.93
364	9.77	34.72	0.13	3.12	126	600	6.92	34.61	0.29	3.40	93	1.03
425	8.84	34.67	0.13	3.30	116	700	6.19	34.61	0.11	3.52	84	1.13
511	7.66	34.61	0.17	3.40	103	800	5.58	34.60	0.13	3.60	78	1.22
640	6.61	34.61	0.11	3.40	89	1000	(4.58)	(34.57)	(0.28)	(3.60)	(68)	(1.39)
777	5.68	34.60	0.11	3.60	78							
976	4.70	34.58	0.26	3.60	69							

320

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m	

SIO

EASTROPIC

SPENCER F. BAIRD; December 8, 1955; 1039 GCT; 14°05'N, 93°05'W; sounding, 1300 fm; wind, 130°, force 1; weather, cloudy; sea, smooth; wire angle, 18°.

F-80

0	27.98	33.66	4.68	0.58	639	0	27.98	33.66	4.68	0.58	639	0.00
19	27.97	33.69	4.65	0.58	636	10	27.98	33.68	4.66	0.58	637	0.06
28	24.03	33.89	3.31	1.30	504	20	27.96	33.69	4.64	0.59	635	0.13
37	17.61	34.72	0.74	2.42	281	30	22.55	34.19	2.83	1.55	443	0.18
43	17.41	34.74	0.52	2.52	274	50	16.10	34.82	0.36	2.56	238	0.25
47	16.82	34.79	0.46	2.52	258	75	14.23	34.88	0.18	2.59	196	0.30
52	15.86	34.83	0.35	2.57	232	100	13.47	34.92	0.24	2.63	178	0.35
61	14.80	34.85	0.33	2.57	209	150	12.66	34.86	0.25	2.67	166	0.44
102	13.42	34.92	0.25	2.64	176	200	12.13	34.82	0.22	2.72	159	0.53
150	12.66	34.86	0.25	2.67	166	250	11.60	34.79	0.17	2.80	152	0.61
254	11.54	34.79	0.16	2.81	151	300	11.09	34.78	0.14	2.90	143	0.68
299	11.10	34.78	0.14	2.89	144	400	9.41	34.69	0.13	3.18	123	0.82
352	10.32	34.74	0.14	3.01	134	500	7.89	34.60	0.12	3.61	108	0.95
425	8.90	34.67	0.12	3.31	117	600	6.92	34.60	0.29	3.55	94	1.06
503	7.84	34.60	0.13	3.62	106	700	6.21	34.59	0.12	3.64	86	1.15
603	6.88	34.60	0.30	3.55	93	800	5.58	34.57	0.15	3.74	78	1.24
751	5.86	34.58	0.12	3.69	82	1000	4.59	34.58	0.40	3.75	68	1.41
901	5.02	34.56	0.32	3.78	74							
1110	4.18	34.60	0.49	3.72	62							

SPENCER F. BAIRD; December 8, 1955; 1811 GCT; 14°38.5'N, 93°55'W; sounding, 1150 fm; wind, 110°, force 1; weather, cloudy; sea, smooth; wire angle, 31°.

F-81

0	28.54	33.08	4.90	0.35	698	0	28.54	33.08	4.90	0.35	698	0.00
13	28.41	33.40	4.94	0.43	670	10	28.44	33.37	4.93	0.44	674	0.07
18	25.87	33.70	4.35	0.82	571	20	24.36	33.84	3.74	1.15	518	0.13
22	21.35	34.36	2.68	1.71	398	30	17.83	34.69	1.60	2.07	287	0.17
28	18.66	34.63	1.87	1.95	311	50	14.72	34.84	0.45	2.59	208	0.22
33	16.78	34.84	1.30	2.23	252	75	13.41	34.89	0.22	2.68	179	0.27
39	15.92	34.83	0.94	2.28	234	100	12.99	34.87	0.19	2.69	172	0.31
48	15.02	34.83	0.52	2.54	216	150	12.43	34.87	0.17	2.69	162	0.39
63	13.73	34.90	0.23	2.68	183	200	11.96	34.85	0.23	2.72	154	0.47
144	12.48	34.87	0.17	2.69	162	250	11.46	34.84	0.12	2.77	146	0.56
226	11.70	34.84	0.23	2.74	150	300	10.84	34.80	0.20	2.87	138	0.63
268	11.24	34.84	0.11	2.80	142	400	9.51	34.70	0.10	3.23	123	0.76
316	10.67	34.78	0.25	2.90	137	500	8.09	34.65	0.13	3.45	106	0.89
378	9.78	34.72	0.10	3.16	127	600	7.12	34.60	0.14	3.50	96	0.99
444	8.81	34.69	0.10	3.36	113	700	6.34	34.59	0.13	3.66	87	1.10
532	7.70	34.61	0.15	3.47	103	800	5.64	34.58	0.16	3.79	80	1.19
662	6.62	34.60	0.13	3.58	89	1000	(4.69)	(34.56)	(0.24)	(3.70)	(70)	(1.36)
795	5.68	34.58	0.16	3.78	80							
992	4.70	34.56	0.23	3.70	70							

SPENCER F. BAIRD; December 9, 1955; 0439 GCT; 15°48'N, 95°03'W; sounding, 150 fm; wind, 015°, force 5; weather, cloudy; sea, moderate; wire angle, 40°.

F-82

0	28.22	33.42	4.79	0.40	663	0	28.22	33.42	4.79	0.40	663	0.00
10	28.15	33.41	4.82	0.40	662	10	28.15	33.41	4.82	0.40	662	0.07
19	25.63	33.91	3.99	1.10	549	20	25.18	33.96	3.87	1.12	533	0.13
24	19.54	34.47	2.08	1.37	344	30	18.19	34.67	1.47	2.02	297	0.17
29	18.54	34.63	1.62	1.97	308	50	15.94	34.82	0.57	2.50	236	0.22
39	16.30	34.79	0.72	2.33	245	75	14.52	34.85	0.26	2.60	203	0.28
57	15.79	34.82	0.51	2.52	232	100	13.55	34.87	0.26	2.59	183	0.32
66	15.56	34.81	0.47	2.52	228	150	12.84	34.85	0.18	2.63	171	0.41
79	14.34	34.86	0.16	2.60	199	200	(12.31)	(34.83)	(0.11)	(2.72)	(162)	(0.50)
111	13.32	34.87	0.24	2.57	178							
199	12.32	34.83	0.12	2.72	162							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

F-83

SPENCER F. BAIRD; December 9, 1955; 1047 GCT; 15°09.5'N, 95°29.5'W; sounding, 2430 fm; wind, 050°, force 7; weather, cloudy; sea, missing; wire angle, 28°.

0	24.98	33.83	4.39	0.60	536	0	24.98	33.83	4.39	0.60	536	0.00
3	24.74	33.82	4.22	0.66	530	10	15.43	34.84	0.45	2.51	223	0.04
6	23.60	33.92	3.89	0.87	490	20	14.27	34.90	0.18	2.58	194	0.06
8	16.12	34.72	0.65	2.48	246	30	13.89	34.90	0.15	2.58	187	0.08
11	14.98	34.87	0.31	2.57	211	50	13.39	34.90	0.13	2.61	177	0.11
13	14.78	34.90	0.23	2.61	204	75	13.00	34.89	0.15	2.61	171	0.16
26	14.04	34.90	0.18	2.57	190	100	12.70	34.87	0.14	2.64	167	0.20
44	13.47	34.90	0.13	2.62	179	150	12.00	34.84	0.16	2.73	156	0.28
87	12.84	34.88	0.15	2.61	168	200	11.42	34.82	0.20	2.79	147	0.36
134	12.18	34.84	0.13	2.71	159	250	10.87	34.79	0.10	2.87	139	0.43
221	11.16	34.81	0.19	2.81	143	300	10.31	34.75	0.18	3.06	133	0.51
264	10.72	34.78	0.08	2.91	138	400	9.10	34.67	0.12	3.29	120	0.63
310	10.22	34.75	0.20	3.07	132	500	7.79	34.61	0.13	3.51	105	0.75
372	9.48	34.69	0.10	3.22	124	600	6.79	34.60	0.15	3.51	92	0.86
436	8.54	34.65	0.13	3.40	112	700	6.10	34.59	0.13	3.55	84	0.95
527	7.48	34.60	0.13	3.54	102	800	5.58	34.58	0.11	3.68	78	1.04
661	6.34	34.60	0.14	3.50	86	1000	(4.61)	(34.57)	(0.24)	(3.74)	(69)	(1.21)
797	5.58	34.58	0.11	3.68	79							
990	4.66	34.57	0.23	3.74	69							

F-84

SPENCER F. BAIRD; December 9, 1955; 1642, 1658 GCT; 14°19'N, 95°50.5'W; sounding, 1880 fm; wind, 050°, force 8; weather, partly cloudy; sea, very rough; wire angle, 03°, 00°.

0	24.48	33.73	4.35	0.86	529	0	24.48	33.73	4.35	0.86	529	0.00
10	24.25	33.75	4.35	0.87	522	10	24.25	33.75	4.35	0.87	522	0.05
						20	22.04	34.01	3.63	1.43	442	0.10
15	23.33	33.87	4.10	1.10	586	30	20.33	34.45	2.00	2.14	366	0.14
19	22.18	33.99	3.71	1.39	547	50	16.00	34.78	0.52	2.49	240	0.20
30	20.33	34.45	-	2.14	366	75	13.75	34.87	0.17	2.68	187	0.26
42	17.94	34.61	1.11	2.33	296	100	12.92	34.88	0.17	2.75	170	0.30
52	15.55	34.85	0.39	2.54	225	150	12.29	34.85	0.17	2.77	160	0.38
66	14.68	34.86	0.27	2.62	206	200	11.67	34.81	0.18		152	0.46
80	13.35	34.88	0.17	2.71	178	250	11.00	34.76	0.19		144	0.54
151	12.28	34.85	0.17	2.77	160	300	10.38	34.74	0.14		135	0.61
248	11.02	34.76	0.19	-	144	400	8.82	34.65	0.11		117	0.74
290	10.50	34.74	0.13	-	136	500	7.61	34.60	0.16		103	0.87
343	9.62	34.70	0.16	-	126	600	6.55	34.60	0.25		88	0.97
416	8.62	34.64	0.11	-	115	700	5.97	34.58	0.13		83	1.06
495	7.68	34.60	0.13	-	104	800	5.53	34.58	0.12		77	1.15
575	6.73	34.60	0.31	-	92	1000	4.53	34.55	0.31		68	1.32
737	5.82	34.58	0.12	-	82							
886	5.04	34.56	0.19	-	74							
1084	4.26	34.55	0.41	-	66							

F-85

SPENCER F. BAIRD; December 10, 1955; 0034 GCT; 13°42'N, 97°01.5'W; sounding, 2195 fm; wind, 070°, force 7; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	27.41	33.33	5.01	0.33	645	0	27.41	33.33	5.01	0.33	645	0.00
20	27.38	33.37	4.66	0.33	641	10	27.40	33.35	4.83	0.33	643	0.06
39	26.59	33.53	4.51	0.55	605	20	27.38	33.37	4.66	0.33	641	0.13
53	24.60	33.81	3.84	0.98	527	30	27.27	33.61	4.63	0.35	633	0.19
63	20.64	34.33	1.84	1.95	382	50	25.25	33.74	4.10	0.83	550	0.31
73	16.69	34.78	0.13	2.64	256	75	16.44	34.78	0.13	2.63	250	0.41
83	15.54	34.78	0.12	2.57	230	100	13.99	34.82	0.21	2.60	195	0.47
97	14.13	34.81	0.22	2.61	199	150	12.79	34.85	0.16	2.58	170	0.56
130	13.08	34.87	0.15	2.54	173	200	12.11	34.81	0.17	2.62	160	0.65
166	12.51	34.82	0.16	2.62	167	250	11.49	34.80	0.17	2.66	150	0.73
236	11.63	34.81	0.18	2.64	152	300	10.78	34.74	0.12	2.82	142	0.80
283	11.00	34.76	0.12	2.77	144	400	9.28	34.68	0.13	3.12	123	0.94
338	10.23	34.70	0.13	2.94	135	500	7.68	34.61	0.13	3.35	104	1.06
407	9.08	34.67	0.13	3.15	119	600	6.69	34.57	0.18	3.40	93	1.17
473	8.00	34.61	0.11	3.32	108	700	5.99	34.55	0.11	3.40	86	1.27
573	6.84	34.58	0.19	3.40	94	800	5.42	34.55	0.13	3.50	79	1.36
715	5.88	34.55	0.11	3.40	84	1000	4.40	34.56	0.32	3.50	68	1.53
860	5.08	34.55	0.18	3.54	76							
1056	4.16	34.56	0.37	3.44	65							

322

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; December 10, 1955; 0916 GCT; 13°16.5'N, 97°44.5'W; sounding, 2110 fm; wind, 060°, force 6; weather, cloudy; sea, very rough; wire angle, missing.

F-86

0	26.86	33.68	4.56	0.52	603	0	26.86	33.68	4.56	0.52	603	0.00
16	26.84	33.73	4.59	0.52	600	10	26.85	33.71	4.58	0.52	602	0.06
32	26.84	33.73	4.70	0.55	600	20	26.84	33.73	4.62	0.55	601	0.12
39	26.81	33.73	4.67	0.57	599	30	26.84	33.73	4.69	0.55	600	0.18
43	26.74	33.69	4.53	0.58	599	50	25.76	33.81	4.22	0.80	560	0.30
48	26.34	33.78	4.42	0.66	581	75	18.08	34.53	1.18	2.59	305	0.40
51	25.53	33.81	4.16	0.84	554	100	14.83	34.79	0.17	2.66	214	0.47
56	23.32	34.00	3.45	1.24	477	150	12.96	34.83	0.17	2.69	175	0.57
62	20.64	34.25	2.53	1.87	388	200	12.58	34.85	0.16	2.69	166	0.66
78	17.71	34.58	1.00	2.62	292	250	11.62	34.81	0.18	2.81	151	0.74
191	12.64	34.85	0.17	2.69	166	300	9.96	34.68	0.14	3.15	132	0.81
229	12.18	34.84	0.13	2.65	159	400	7.94	34.61	0.16	3.52	107	0.94
272	11.00	34.76	0.25	2.96	144	500	7.13	34.58	0.25	3.62	98	1.05
328	9.11	34.63	0.13	3.30	123	600	6.12	34.55	0.13	3.70	87	1.16
386	8.10	34.61	0.12	3.51	109	700	5.49	34.54	0.13	3.76	81	1.25
468	7.39	34.58	0.27	3.60	102	800	4.99	34.54	0.23	3.80	75	1.34
578	6.29	34.56	0.13	3.68	89	1000						(1.49)
706	5.46	34.54	0.13	3.76	81							
885	4.65	34.55	0.32	3.82	71							

SPENCER F. BAIRD; December 10, 1955; 1700 GCT; 14°01.5'N, 98°41.5'W; sounding, 1950 fm; wind, 090°, force 3; weather, cloudy; sea, slight; wire angle, 23°.

F-87

0	28.20	33.40	4.57	0.27	665	0	28.20	33.40	4.57	0.27	665	0.00
19	28.09	33.41	4.59	0.25	660	10	28.19	33.40	4.58	0.26	664	0.07
37	25.23	33.93	4.04	0.81	537	20	28.08	33.41	4.59	0.25	660	0.13
46	22.18	34.47	2.85	1.33	412	30	27.28	33.60	4.49	0.42	622	0.20
55	19.86	34.56	1.48	2.00	345	50	21.57	34.50	2.54	1.48	394	0.30
64	17.36	34.65	0.18	2.72	280	75	15.33	34.75	0.12	2.72	228	0.38
73	15.93	34.72	0.13	2.72	243	100	13.46	34.84	0.09	2.73	183	0.43
131	12.66	34.86	0.08	2.74	166	150	12.44	34.84	0.08	2.77	164	0.51
248	11.32	34.78	0.09	2.94	148	200	11.83	34.81	0.09	2.86	155	0.60
291	10.66	34.73	0.09	3.04	140	250	11.28	34.77	0.09	2.94	147	0.68
379	9.06	34.61	0.08	3.32	123	300	10.46	34.71	0.09	3.08	138	0.75
576	6.62	34.55	0.10	3.55	94	400	8.77	34.61	0.08	3.34	119	0.89
770	5.26	34.52	0.16	3.78	79	500	7.47	34.58	0.14	3.45	103	1.01
959	4.44	34.57	0.30	3.81	67	600	6.39	34.54	0.11	3.61	92	1.12
1154	3.75	34.57	0.60	3.75	61	700	5.61	34.52	0.13	3.74	84	1.21
1434	3.05	34.60	1.12	3.48	52	800	5.11	34.53	0.17	3.80	78	1.30
1973	2.10	34.62	2.05	3.05	42	1000	4.28	34.57	0.35	3.81	66	1.47
2431	1.84	34.67	2.48	3.08	38	1200	3.61	34.57	0.68	3.72	59	1.61
3119	1.86	34.66	2.53	2.87	36	1500	2.89	34.60	1.27	3.40	50	1.81
						2000	2.09	34.62	2.06	3.06	42	2.09
						2500	1.84	34.66	2.49	3.05	37	2.33
						3000	1.85	34.66	2.52	2.90	36	2.57

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED						COMPUTED
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m

F-88

SPENCER F. BAIRD; December 11, 1955; 0521 GCT; 14°58'N, 100°14.5'W; sounding, 2050 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°.

0	27.64	33.62	4.60	0.30	632	0	27.64	33.62	4.60	0.30	632	0.00
10	27.62	33.60	4.64	0.30	632	10	27.62	33.60	4.64	0.30	632	0.06
20	27.65	33.64	4.66	0.30	630	20	27.65	33.64	4.66	0.30	630	0.13
24	26.53	34.00	4.79	0.45	570	30	22.56	34.41	3.52	0.97	426	0.18
29	23.40	34.33	4.30	0.72	456	50	15.83	34.71	0.18	2.50	241	0.25
34	20.82	34.51	1.85	1.64	374	75	13.72	34.78	0.11	2.48	193	0.30
39	18.58	34.60	0.50	2.31	311	100	13.21	34.80	0.10	2.48	182	0.35
44	17.97	34.63	0.30	2.35	295	150	12.56	34.80	0.11	2.51	169	0.44
49	16.42	34.69	0.23	2.50	256	200	11.98	34.79	0.11	2.54	159	0.52
96	13.26	34.80	0.10	2.48	182	250	11.26	34.75	0.12	2.61	149	0.60
243	11.37	34.76	0.12	2.59	150	300	10.51	34.69	0.18	2.73	141	0.68
291	10.62	34.69	0.16	2.70	142	400	8.99	34.61	0.13	3.00	123	0.81
345	9.89	34.67	0.23	2.91	132	500	7.61	34.56	0.13	3.22	106	0.94
417	8.70	34.60	0.11	3.03	119	600	6.66	34.54	0.23	3.29	95	1.05
487	7.74	34.56	0.12	3.19	108	700	5.99	34.52	0.12	3.29	88	1.15
587	6.76	34.54	0.23	3.29	96	800	5.34	34.52	0.16	3.36	81	1.24
732	5.80	34.52	0.12	3.29	85	1000	4.42	34.51	0.31		71	1.41
875	4.94	34.52	0.19	3.46	76							
1079	4.16	34.51	0.42	- a)	68							

F-89

SPENCER F. BAIRD; December 11, 1955; 1800, 1818 GCT; 15°58'N, 101°31.5'W; sounding, 2000 fm; wind, calm; weather, thunderstorm; sea, smooth; wire angle, 04°, missing.

0	27.31	33.89	4.61	0.31	602	0	27.31	33.89	4.61	0.31	602	0.00
15	27.26	33.88	4.60	0.30	601	10	27.29	33.88	4.60	0.30	602	0.06
29	26.99	33.99	4.67	0.38	584	20	27.21	33.89	4.60	0.32	600	0.12
34	25.63	34.14	4.69	0.38	532	30	26.84	34.01	4.70	0.38	579	0.18
39	23.76	34.30	3.71	0.51	468	50	19.89	34.50	1.84	1.06	351	0.27
						75	15.55	34.70	0.12	1.95	236	0.35
43	20.87	34.41	2.39	0.90	382	100	14.22	34.74	0.10	2.30	205	0.40
49	20.65	34.46	2.27	0.88	373	150	12.94	34.78	0.10	2.35	178	0.50
58	17.72	34.54	0.62	1.52	296	200	12.06	34.78	0.10	2.37	161	0.59
68	16.84	34.62	0.25	1.55	270	250	11.36	34.76	0.12	2.41	150	0.67
96	14.34	34.74	0.10	2.29	208	300	10.63	34.72	0.23	2.64	141	0.74
236	11.51	34.76	0.11	2.39	153	400	9.21	34.60	0.17	2.87	126	0.89
285	10.84	34.70	0.22	2.57	143	500	7.84	34.57	0.12	3.00	108	1.01
338	10.18	34.69	0.24	2.78	136	600	6.86	34.54	0.18	3.29	97	1.13
410	9.08	34.60	0.16	2.88	125	700	6.02	34.52	0.12	3.30	88	1.23
482	8.06	34.58	0.10	2.95	111	800	5.47	34.50	0.16	3.37	82	1.32
579	7.04	34.54	0.24	3.29	100	1000	4.43	34.52	0.35	3.48	71	1.49
726	5.90	34.52	0.12	3.30	87							
869	5.02	34.49	0.25	3.44	79							
1071	4.20	34.54	0.39	3.48	67							

a) One phosphate sample missing; it was assumed to be last one.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T		Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

SPENCER F. BAIRD; December 12, 1955; 0942, 1001 GCT; 17°27'N, 103°19.5'W; sounding, 2600 fm; wind, 310°, force 3; weather, cloudy; sea, smooth; wire angle, 11°, 12°.

F-90

0	25.76	33.84	4.79	0.35	558	0	25.76	33.84	4.79	0.35	558	0.00
10	25.73	33.82	4.76	0.32	559	10	25.73	33.82	4.76	0.32	559	0.06
19	23.92	34.20	4.43	0.59	480	20	23.64	34.22	4.40	0.63	470	0.11
24	22.05	34.32	3.73	0.90	419	30	19.43	34.50	1.45	1.73	340	0.15
28	19.56	34.49	1.66	1.65	343	50	16.49	34.65	0.17	2.42	260	0.21
						75	14.76	34.72	0.13	2.47	218	0.27
34	19.12	34.53	1.16	1.87	330	100	13.69	34.79	0.13	2.50	192	0.32
39	17.95	34.53	0.76	2.11	302	150	12.43	34.78	0.13	2.54	168	0.41
44	17.07	34.60	0.23	2.34	277	200	11.46	34.75	0.14	2.57	153	0.49
48	16.74	34.63	0.17	2.41	267	250	10.63	34.69	0.13	2.60	143	0.58
94	13.88	34.79	0.13	2.49	195	300	9.96	34.64	0.12	2.69	136	0.65
238	10.81	34.70	0.14	2.60	145	400	8.49	34.53	0.14	2.95	122	0.78
286	10.16	34.65	0.12	2.66	138	500	7.41	34.51	0.08	3.06	107	0.90
338	9.36	34.60	0.12	2.81	129	600	6.54	34.47	0.11	3.14	98	1.01
410	8.32	34.52	0.14	2.98	119	700	5.91	34.51	0.12	3.24	87	1.11
481	7.54	34.52	0.07	3.05	108	800	5.45	34.50	0.13	3.25	83	1.21
580	6.69	34.47	0.11	3.12	101	1000	4.46	34.51	0.28	3.27	72	1.88
725	5.78	34.51	0.12	3.25	86							
867	5.06	34.50	0.16	3.26	79							
1066	4.18	34.52	0.34	3.28	68							

SPENCER F. BAIRD; December 13, 1955; 0255 GCT; 19°00'N, 104°57'W; sounding, 650 fm; wind, 310°, force 2; weather, cloudy; sea, smooth; wire angle, 03°.

F-91

0	23.49	34.20	5.24	0.34	467	0	23.49	34.20	5.24	0.34	467	0.00
7	22.45	34.28	4.20	0.66	433	10	20.46	34.38	1.94	1.50	373	0.04
10	20.46	34.38	1.94	1.50	373	20	18.69	34.57	0.51	2.25	317	0.08
13	19.75	34.43	1.21	1.84	352	30	17.52	34.61	0.13	2.43	287	0.11
15	19.42	34.47	0.99	1.96	342	50	15.53	34.62	0.12	2.56	242	0.16
19	18.84	34.56	0.61	2.20	321	75	14.32	34.72	0.11	2.53	210	0.22
29	17.64	34.61	0.13	2.40	289	100	13.50	34.77	0.10	2.59	188	0.26
43	16.08	34.61	0.13	2.61	254	150	12.37	34.74	0.10	2.66	170	0.36
62	14.89	34.65	0.11	2.50	225	200	11.89	34.72	0.11	2.67	163	0.44
148	12.40	34.74	0.10	2.65	170	250	11.31	34.70	0.13	2.74	154	0.52
242	11.43	34.71	0.12	2.70	155	300	10.38	34.62	0.14	2.91	144	0.60
289	10.57	34.64	0.12	2.88	145	400	8.92	34.52	0.10	3.10	128	0.73
342	9.68	34.56	0.22	3.00	137	500	(7.81)	(34.52)	(0.13)	(3.26)	(112)	(0.85)
414	8.74	34.51	0.10	3.12	126							
487	7.90	34.52	0.14	3.24	113							
3627a)	1.60	-	-	-	-							

HORIZON; October 3, 1955; 0440 GCT; 29°56'N, 121°59'W; sounding, 2240 fm; wind, 315°, force 4; weather, cloudy; sea, slight; wire angle, 25°.

H-1

0	17.70	33.51	5.25	0.52	370	0	17.70	33.51	5.25	0.52	370	0.00
14	17.70	33.55	5.48	0.44	368	10	17.70	33.53	5.40	0.47	369	0.04
41	17.64	33.48	5.56	0.43	371	20	17.69	33.53	5.50	0.43	369	0.07
67	15.69	33.46	6.04	0.52	330	30	17.68	33.50	5.52	0.43	370	0.11
86	14.59	33.34	6.03	0.47	316	50	17.06	33.48	5.78	0.47	358	0.18
113b)	13.49	33.30	5.84	0.54	297	75	15.12	33.39	6.06	0.50	322	0.27
						100	13.88	33.31	5.92	0.50	304	0.35

a) Data obtained at this depth with Van Dorn sampler.

b) Pretrip below 113 meters.

SIO	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
EASTROPIC	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m
H-2	HORIZON; October 3, 1955; 1825, 1900 GCT; 28°03'N, 121°49'W; sounding, missing; wind, 320°, force 3; weather, overcast; sea, slight; wire angle, 18°, 22°.												
	0	18.47	33.60			382	0	18.47	33.60			382	0.00
	19	18.46	33.71			380	10	18.46	33.66			378	0.04
	37	18.45	33.61			373	20	18.46	33.70			374	0.08
	59	15.59	33.38			333	30	18.46	33.65			378	0.11
	94	13.43a)	33.47			283	50	16.32	33.42			347	0.19
	124	10.76	33.46			236	75	14.77	33.41			314	0.27
	146	9.98	33.63			211	100	12.81	33.47			272	0.34
	172	9.92	34.03			180	150	9.95	33.69			206	0.46
	194	9.78	34.22			164	200	9.78	34.26			160	0.55
	221	9.83	34.34			156	250	9.47	34.40			145	0.64
	247	9.52	34.40			146	300	8.85	34.36			138	0.71
	292	8.95	34.36			141	400	7.63	34.42			117	0.85
	345	8.33	34.40			128	500	6.68	34.46			102	0.97
	416	7.44	34.42			114	600	6.03	34.40			98	1.08
	490	6.77	34.46			102	700	5.42	34.43			88	1.17
	588	6.14	34.40			99	800	4.88	34.40			84	1.27
	738	5.23	34.43			86	1000						(1.44)
	887	4.49	34.33			85							
H-3	HORIZON; October 4, 1955; 0946 GCT; 25°58'N, 121°48'W; sounding, 2020 fm; wind, 330°, force 3; weather, overcast; sea, slight; wire angle, 14°.												
	0	19.05	33.94	5.38	0.50	370	0	19.05	33.94	5.38	0.50	370	0.00
	24	19.06	34.02	5.35	0.45	365	10	19.05	33.97	5.37	0.48	369	0.04
	53	18.69	33.93	5.60	0.39	362	20	19.06	34.00	5.36	0.46	366	0.07
	77	16.66	33.95	5.84	0.41	315	30	19.05	34.02	5.36	0.45	365	0.11
	106	16.04	33.96	5.81	0.40	301	50	18.99	34.01	5.39	0.42	364	0.18
	129	14.90	33.95	5.50	0.51	278	75	16.73	33.95	5.83	0.41	316	0.27
	158	13.04	33.66	5.41	0.79	262	100	16.19	33.96	5.82	0.40	304	0.35
	175	11.28	33.56	4.89	1.12	238	150	13.61	33.77	5.44	0.73	264	0.49
	202	9.88	33.68	4.34	1.57	205	200	9.95	33.67	4.35	1.54	206	0.62
	224	9.13	33.75	4.03	1.84	189	250	8.51	33.92	3.60	2.07	167	0.71
	256	8.42	33.96	3.56	2.09	163	300	7.70	34.07	3.23	2.32	144	0.79
	302	7.69	34.07	3.14	2.32	143	400	6.68	34.17	1.44	3.08	123	0.93
	357	7.43	34.19	1.52	2.96	132	500	5.83	34.32	0.72	3.39	101	1.05
	430	6.17	34.16	1.32	3.17	117	600	5.50	34.48	0.52	3.59	85	1.15
	511	5.80	34.36	0.69	3.41	98	700	5.08	34.47	0.39	3.60	81	1.25
	616	5.44	34.49	0.49	3.59	84	800	4.70	34.47	0.39	3.62	77	1.34
	772	4.84	34.47	0.38	3.60	78	1000	3.93	34.55	0.68	3.61	64	1.50
	926	4.18	34.52	0.58	3.61	68							
	1126	3.63	34.58	0.80	3.57	58							
H-4	HORIZON; October 5, 1955; 0114 GCT; 24°00'N, 121°41'W; sounding, 2320 fm; wind, 355°, force 4; weather, overcast; sea, slight; wire angle, 16°.												
	0	21.30	34.09	5.24	0.45	416	0	21.30	34.09	5.24	0.45	416	0.00
	29	21.27	34.05	5.24	0.44	418	10	21.29	34.08	5.24	0.45	417	0.04
	39	19.52	33.95	5.77	0.43	382	20	21.28	34.06	5.24	0.45	418	0.08
	58	17.94	33.80	6.02	0.46	355	30	21.27	34.05	5.27	0.44	418	0.13
	86	16.30	33.65	5.73	0.48	329	50	18.50	33.86	5.97	0.45	363	0.20
	116	13.46	33.46	5.02	0.83	284	75	16.81	33.69	5.87	0.46	337	0.29
	144	11.20	33.54	4.31	1.43	237	100	15.15	33.55	5.41	0.59	311	0.37
	192	10.45	34.12	2.20	2.39	182	150	10.90	33.61	3.72	1.62	228	0.51
	219	10.36	34.25	1.78	2.60	171	200	10.43	34.16	2.12	2.41	179	0.62
	245	10.22	34.42	1.29	2.83	156	250	10.17	34.41	1.13	2.87	157	0.70
	259	10.08	34.36	1.05	2.89	158	300	9.38	34.38	0.88	3.00	146	0.78
	307	9.25	34.38	0.87	3.01	144	400	7.99	34.39	0.55	3.24	124	0.92
	365	8.38	34.37	0.75	3.10	131	500	6.98	34.40	0.38	3.41	110	1.04
	442	7.60	34.40	0.40	3.34	118	600	6.17	34.43	0.27	3.52	97	1.16
	521	6.72	34.40	0.38	3.44	106	700	5.62	34.45	0.29	3.57	88	1.26
	625	6.04	34.44	0.26	3.54	95	800	5.02	34.46	0.41	3.60	80	1.35
	780	5.14	- r	0.38	3.59	70	1000	4.35	34.50	0.65	3.65	71	1.52
	935	4.38	34.46r	0.58	3.66	75							
326	1137	4.33	34.52	0.71	3.64	70							

a) Alternate value, of 13.51°C.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m	

SIO

EASTROPIC

HORIZON; October 5, 1955; 1532, 1600 GCT; 22°00'N, 121°35'W; sounding, 2350 fm; wind, 035°, force 3; weather, overcast; sea, smooth; wire angle, 13°, 14°.

H-5

0	21.27	34.16	5.14	0.44	410	0	21.27	34.16	5.14	0.44	410	0.00
25	21.31	34.18	5.18	0.39	410	10	21.29	34.17	5.16	0.42	410	0.04
45	21.35	34.23	5.18	0.38	408	20	21.31	34.17	5.17	0.40	410	0.08
53	19.60	34.21	5.63	0.46	364	30	21.33	34.20	5.18	0.39	409	0.12
79	17.70	33.86	5.86	0.44	344	50	20.20	34.22	5.52	0.43	379	0.20
107	16.17	33.78	6.01	0.54	317	75	17.98	33.90	5.83	0.44	349	0.29
131	13.46	33.65	4.91	0.86	270	100	16.61	33.80	5.98	0.50	325	0.38
160	11.49	33.66	4.24	1.41	234	150	11.97	33.65	4.56	1.21	243	0.52
179	10.97	33.82	3.24	1.91	213	200	10.18	33.92	3.73	1.82	192	0.64
207	9.93	33.96	3.83	1.79	186	250	9.44	34.21	1.84	2.70	159	0.73
						300	8.79	34.27	1.45	2.82	144	0.80
265	9.31	34.25	1.63	2.72	154	400	7.32	34.36	0.62	3.33	117	0.94
313	8.51	34.28	1.38	2.85	140	500	6.66	34.42	0.32	3.52	103	1.06
369	7.61	34.33	0.81	3.13	123	600	6.09	34.43	0.29	3.57	96	1.17
446	6.97	34.39	0.43	3.49	111	700	5.55	34.43	0.30	3.65	90	1.27
526	6.53	34.43	0.29	3.53	102	800	5.03	34.46	0.36	3.73	82	1.36
634	5.90	34.43	0.29	3.60	94	1000	4.20	34.51	0.58	3.73	69	1.54
793	5.06	34.46	0.35	3.73	82							
949	4.39	34.51	0.51	3.74	71							
1154	3.75	34.51	0.78	3.64	65							

HORIZON; October 6, 1955; 0619 GCT; 20°00'N, 121°31'W; sounding, 2310 fm; wind, 040°, force 4; weather, overcast; sea, moderate; wire angle, 22°.

H-6

0	23.70	34.67	5.50	0.22	440	0	23.70	34.67	5.50	0.22	440	0.00
23	23.76	34.63	4.81	0.26	444	10	23.72	34.65	5.20	0.24	442	0.04
41	23.71	34.62	4.91	0.23	443	20	23.75	34.63	4.90	0.26	444	0.09
50	21.24	34.30	5.24	0.33	399	30	23.74	34.63	4.85	0.25	444	0.13
72	18.41	34.06	5.18	0.42	347	50	21.24	34.30	5.24	0.33	400	0.22
100	14.55	33.95	4.17	1.24	270	75	18.00	34.01	5.13	0.45	341	0.31
122	12.58	33.95	2.98	1.94	232	100	14.55	33.95	4.17	1.24	270	0.39
149	11.32	33.98	2.45	2.26	207	150	11.29	33.98	2.49	2.25	206	0.51
167	10.44	34.06	2.47	2.29	186	200	10.88	34.56	2.48	2.70	156	0.61
193	10.92	34.51	1.01	2.59	162	250	10.23		0.52	3.00		
244	10.34	34.76	0.56	2.96	133	300	9.50		0.33	3.23		
289	9.64	- a)	0.38	3.19	-	400	8.32		0.53	3.66		
342	9.10	-	0.26	3.36	-	500	7.02		0.41	3.97		
413	8.13	-	0.55	3.72	-	600	6.27		0.21	3.51		
488	7.16	-	0.27	3.98	-	700	5.62		0.27	3.49		
587	6.34	-	0.20	3.51	-	800	5.10		0.32	3.51		
731	5.43	-	0.29	3.49	-	1000	4.30		0.54	3.55		
880	4.72	-	0.38	3.51	-							
1080	4.05	-	0.66	3.56	-							

a) Salinity samples below 244 meters inadvertently lost.

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD	
m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	$\mu\text{g at/L}$	$10^{-5} \text{ cm}^3/\text{g}$	dyn m	

H-7

HORIZON; October 6, 1955; 2037, 2056, missing GCT; 17°57'N, 121°26'W; sounding, 2270 fm; wind, 025°, force 4; weather, partly cloudy; sea, slight; wire angle, 26°, 26°, 34°.

0	24.41	34.52	4.90	0.40	471	0	24.41	34.52	4.90	0.40	471	0.00	
13	24.40	34.49	4.93	0.42	473	10	24.40	34.50	4.92	0.40	472	0.05	
26	24.20	34.58	4.93	0.37	461	20	24.32	34.50	4.93	0.38	470	0.09	
38	21.88	34.52	5.32	0.47	400	30	23.85	34.58	5.02	0.38	450	0.14	
						50	20.80	34.25	5.50	0.45	391	0.22	
60	20.25	34.14	5.54	0.46	386	75	19.22	34.09	5.27	0.46	364	0.32	
76	19.18	34.09	5.26	0.46	363	100	17.25	33.95	4.98	0.42	329	0.41	
91	17.99	-	5.15	0.40	-	150	12.57	34.34	0.31	2.29	203	0.54	
137	12.84	33.85	3.26	0.97	244	200	11.92	34.64	0.18	2.55	169	0.65	
148	12.61	34.20	0.32	2.29	214	250	11.05	34.64	0.13	3.22	154	0.73	
176	12.31	34.61	0.27	2.28	178	300	10.39	34.61	0.18	3.22	145	0.80	
223	11.46	34.65	0.14	3.01	160	400	9.12	34.52	0.13	3.55	132	0.95	
264	10.88	34.63	0.14	3.24	152	500	7.95	34.50	0.35	3.83	116	1.08	
314	10.18	34.60	0.17	3.19	142	600	6.86	34.43	0.27	3.77	106	1.20	
381	9.36	34.52	0.13	3.46	135	700	5.99	34.43	0.27	3.52	95	1.31	
449	8.51	34.54	0.15	3.73	121	800	5.22	34.46	0.35	3.54	83	1.41	
540	7.44	34.44	0.36	3.83	113	1000	4.33	34.52	0.62	3.52	70	1.58	
724	5.80	34.43	0.26	3.50	93								
806	5.18	34.46	-	3.54	84								

1088 4.03 34.54 0.73 3.49 66

H-8

HORIZON; October 7, 1955; 0825 GCT; 16°31'N, 121°21'W; sounding, 2220 fm; wind, 020°, force 4; weather, overcast; sea, moderate; wire angle, 20°.

0	25.76	34.52	4.78		509	0	25.76	34.52	4.78		509	0.00	
19	25.79	34.51	5.09		512	10	25.78	34.51	4.93		511	0.05	
38	25.80	34.58	4.98		507	20	25.79	34.51	5.08		511	0.10	
51	23.29	34.62	5.22		432	30	25.80	34.55	5.03		508	0.15	
75	20.31	34.16	5.56		386	50	23.50	34.62	5.19		438	0.25	
103	15.77	34.00	3.30		292	75	20.31	34.16	5.56		386	0.35	
125	13.86	34.60	0.94		209	100	16.21	34.00	3.94		301	0.44	
154	12.92	34.65	0.24		187	150	13.04	34.64	0.26		190	0.56	
172	12.38	34.71	0.18		172	200	11.80	34.70	0.15		163	0.66	
200	11.80	34.70	0.15		163	250	11.08	34.72	0.10		148	0.74	
255	11.00	34.72	0.09		147	300	10.20	34.63	0.08		140	0.81	
300	10.20	34.63	0.08		140	400	8.79	34.57	0.18		123	0.95	
354	9.41	34.58	0.17		132	500	7.71	34.50	0.22		112	1.07	
427	8.44	34.56	0.18		118	600	6.71	34.47	0.12		101	1.19	
505	7.66	34.33r	0.22		124	700	6.01	34.48	0.31		92	1.30	
606	6.68	34.47	0.13		101	800	5.40	34.50	0.35		83	1.40	
755	5.68	34.49	0.35		87	1000	4.33	34.53	0.58		69	1.57	
904	4.76	34.52	0.41		75								
1104	3.95	34.54	0.76		65								

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; October 7, 1955; 2016 GCT; 14°58'N, 121°15'W; sounding, 2400 fm; wind, 035°, force 4; weather, cloudy; sea, slight; wire angle, 21°.

H-9

0	26.04	34.51	4.80	0.23	519	0	26.04	34.51	4.80	0.23	519	0.00
19	26.00	34.47	4.68	0.22	520	10	26.03	34.49	4.74	0.22	520	0.05
33	25.98	34.50	4.76	0.19	518	20	26.00	34.47	4.68	0.22	521	0.10
45	23.18	34.58	5.41	0.29	432	30	25.99	34.49	4.74	0.20	518	0.16
55	21.76	34.25	5.41	0.29	417	50	22.50	34.45	5.41	0.29	423	0.25
77	17.27	34.05	4.00	1.15	322	75	17.80	34.06	4.21	0.52	332	0.34
89	14.91	33.86	3.98	1.18	284	100	13.89	33.98	2.98	1.63	254	0.42
103	13.64	34.04	2.68	1.79	246	150	12.22	34.54	0.52	2.59	182	0.53
132	12.50	34.42	0.87	2.51	196	200	11.46	34.71	0.12	2.77	156	0.62
190	11.61	34.72	0.11	2.72	157	250	10.62	34.62	0.16	3.07	148	0.70
242	10.72	34.63	0.15	3.08	148	300	9.89	34.62	0.17	2.96	136	0.77
284	10.10	34.62	0.17	2.93	139	400	8.69	34.53	0.21	3.23	123	0.92
338	9.42	34.63	0.18	3.10	128	500	7.55	34.50	0.22	3.15	110	1.03
408	8.58	34.53	0.21	3.23	122	600	6.62	34.47	0.26	3.18	100	1.15
480	7.77	34.52	0.19	3.16	112	700	5.86	34.49	0.26	3.28	89	1.25
570	6.86	34.47	0.26	3.16	103	800	5.23	34.50	0.34	3.35	81	1.34
711	5.79	34.49	0.27	3.29	88	1000	4.25	34.57	0.73	3.50	65	1.51
853	4.88	34.52	0.43	3.39	76							
1045	4.12	34.58	0.81	3.51	63							

HORIZON; October 8, 1955; 0341 GCT; 14°00'N, 121°06'W; sounding, missing; wind, 040°, force 4; weather, overcast; sea, moderate; wire angle, 29°.

H-10

0	26.39	34.33	4.67	0.26	542	0	26.39	34.33	4.67	0.26	542	0.00
16	26.18	34.51	4.76	0.21	523	10	26.22	34.44	4.73	0.23	525	0.05
30	26.17	34.51	5.41	0.30	522	20	26.18	34.51	4.95	0.21	522	0.11
42	22.93	34.34	5.52	0.37	442	30	26.17	34.51	5.41	0.30	522	0.16
59	18.16	34.44	5.52	0.42	314	50	20.30	34.38	5.52	0.37	370	0.25
66	17.26	34.52	1.80	1.79	286	75	16.02	34.50	0.63	2.42	261	0.33
75	16.02	34.50	0.63	2.42	261	100	12.80	34.68	0.28	2.76	183	0.38
84	13.96	34.55	0.56	2.68	214	150	12.06	34.73	0.15	2.77	165	0.47
142	12.14	34.73	0.15	2.77	167	200	11.48	34.75	0.13	2.60	153	0.55
186	11.64	34.75	0.14	2.59	157	250	10.89	34.70	0.09	2.87	146	0.63
237	11.04	34.72	0.09	2.75	148	300	10.32	34.67	0.13	3.04	139	0.70
277	10.57	34.67	0.09	3.01	143	400	8.97	34.60	0.13	3.21	124	0.84
327	10.06	34.67	0.15	3.05	135	500	7.78	34.54	0.15	3.45	110	0.97
391	9.10	34.60	0.13	3.18	125	600	6.80	34.51	0.18	3.50	98	1.08
460	8.20	34.57	0.13	3.40	114	700	5.99	34.48	0.23	3.53	92	1.18
551	7.26	34.52	0.16	3.49	105	800	5.46	34.47	0.27	3.56	86	1.28
683	6.08	34.48	0.23	3.51	93	1000	4.39	34.52	0.67	3.52	70	1.47
843	5.26	34.47	0.30	3.57	83							
1009	4.37	34.52	0.68	3.52	70							

HORIZON; October 8, 1955; 1259 GCT; 13°02'N, 121°03'W; sounding, 2380 fm; wind, 050°, force 4; weather, overcast; sea, slight; wire angle, 28°.

H-11

0	26.60	34.18			599	0	26.60	34.18			560	0.00
9	26.64	34.27			594	10	26.64	34.27			554	0.06
22	22.69	34.36			434	20	23.55	34.35			459	0.11
26	22.02	34.28			422	30	20.85	34.17			399	0.15
31	20.56	34.16			393	50	18.87	34.48			327	0.22
53	18.45	34.52			315	75	13.37	34.71			190	0.29
66	15.11	34.66			225	100	12.74	34.72			178	0.33
80	13.08	-			-	150	11.88	34.72			162	0.42
102	12.72	34.72			177	200	11.33	34.70			154	0.50
150	11.88	34.72			162	250	10.86	34.68			147	0.58
242	10.95	34.69			148	300	10.22	34.65			139	0.65
287	10.36	34.67			140	400	8.92	34.60			123	0.78
339	9.82	34.60			136	500	7.70	34.60			104	0.91
410	8.78	34.60			120	600	6.67	34.56			93	1.02
480	7.92	34.60			107	700	5.80	34.55			83	1.11
573	6.93	34.56			97	800	5.17	34.56			76	1.20
716	5.67	34.55			82	1000	4.30	34.60			64	1.36
857	4.92	34.56			73							
1046	4.13	34.60			62							

329

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-12

HORIZON; October 8, 1955; 2003, 2043 GCT; 12°01'N, 121°00'W; sounding, 2390 fm; wind, 075°, force 3; weather, partly cloudy; sea, moderate; wire angle, 18°, 20°.

0	27.55	33.61			625	0	27.55	33.61			630	0.00
18	27.24	33.59			621	10	27.39	33.59			625	0.06
31	24.12	34.31			477	20	27.05	33.61			614	0.12
42	21.65	34.29			411	30	24.30	34.30			483	0.18
55	18.77	34.51			322	50	19.60	34.44			349	0.26
						75	15.42	34.53			247	0.34
74	15.46	34.53			247	100	13.36	34.75			187	0.39
102	13.25	34.76			185	150	11.86	34.75			160	0.48
129	12.26	34.78			164	200	11.13	34.74			148	0.56
171	11.55	34.73			156	250	10.62	34.72			140	0.64
190	11.25	34.74			150	300	9.96	34.60			138	0.71
254	10.59	34.72			140	400	8.81	34.59			122	0.84
299	9.97	34.60			139	500	7.52	34.47			112	0.97
353	9.39	34.59			130	600	6.55	34.52			95	1.09
427	8.50	34.58			127	700	5.80	34.51			88	1.18
504	7.47	34.47			111	800	5.17	34.32			82	1.27
604	6.53	34.52			95	1000	4.32	34.51			70	1.46
758	5.41	-			-							
906	4.68	34.47			77							
1107	3.96	34.54			64							

H-13

HORIZON; October 9, 1955; 0630 GCT; 11°00'N, 120°56'W; sounding, 2500 fm; wind, 070°, force 3; weather, precipitation within sight; sea, smooth; wire angle, 07°.

0	27.64	33.69	4.67	0.24	626	0	27.64	33.69	4.67	0.24	626	0.00
15	27.17	33.80	4.74	0.21	605	10	27.38	33.74	4.72	0.22	614	0.06
25	25.95	34.33	5.07	0.22	524	20	26.50	34.18	4.94	0.22	556	0.12
35	23.70	34.36	4.80	0.26	462	30	24.90	34.35	4.93	0.24	497	0.17
54	16.67	34.60	0.93	1.56	268	50	17.90	34.58	3.36	0.64	297	0.25
70	14.86	34.69	0.20	2.45	223	75	14.21	34.70	0.17	2.52	208	0.32
104	12.34	34.72	0.15	2.57	171	100	12.48	34.72	0.16	2.57	173	0.36
134	11.86	34.77	0.11	2.66	158	150	11.67	34.77	0.11	2.64	154	0.44
159	11.54	34.76	0.11	2.63	153	200	11.01	34.68	0.09	2.77	150	0.52
212	10.91	34.68	0.09	2.78	148	250	10.47	34.68	0.13	2.74	141	0.60
270	10.22	34.67	0.14	2.69	137	300	9.92	34.62	0.14	2.66	137	0.67
319	9.77	34.60	0.14	2.66	135	400	8.87	34.54	0.11	3.04	126	0.81
378	9.15	34.56	0.11	3.05	128	500	7.67	34.53	0.14	3.11	109	0.94
456	8.15	34.52	0.11	2.99	117	600	6.60	34.52	0.23	3.54	96	1.06
537	7.18	34.54	0.18	3.30	102	700	5.87	34.48	0.28	3.56	90	1.15
646	6.20	34.51	0.26	3.63	92	800	5.23	34.45	0.31	3.21	84	1.25
803	5.22	34.45	0.31	3.21	84	1000						(1.41)
953a)	4.41	34.50	0.88	3.37	73							

H-14

HORIZON; October 9, 1955; 1400 GCT; 10°00'N, 120°53'W; sounding, 2420 fm; wind, 290°, force 1; weather, partly cloudy; sea, smooth; wire angle, 00°.

0	26.97	33.27			636	0	26.97	33.27			636	0.00
28	26.73	33.33			625	10	26.94	33.28			634	0.06
34	25.28	34.00			534	20	26.87	33.30			630	0.13
44	19.68	34.41			353	30	26.65	33.36			620	0.19
51	17.62	34.47			299	50	18.00	34.46			309	0.28
73	14.04	34.51			219	75	13.90	34.52			215	0.35
88	13.03	34.67			187	100	12.60	34.75			173	0.40
119	12.19	34.79			163	150	11.67	34.75			156	0.48
197	11.11	34.70			151	200	11.09	34.70			150	0.56
272	10.38	34.66			141	250	10.59	34.67			143	0.64
322	9.96	34.65			135	300	10.18	34.66			137	0.71
458	8.45	34.58			117	400	9.13	34.61			124	0.84
541	7.48	34.52			107	500	7.98	34.55			112	0.98
650b)	6.34	34.45			98	600	6.81	34.48			102	1.09

a) Pretrip below 953 meters.

b) Pretrip below 650 meters.

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$		m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

SIO

EASTROPIC

HORIZON; October 9, 1955; 2217, 2128 GCT; 9°00'N, 120°48'W; sounding, 2270 fm; wind, 240°, force 2; weather, cloudy; sea, smooth; wire angle, 28°, 29°.

H-15

0	27.40	33.58	4.87	0.38	627	0	27.40	33.58	4.87	0.38	627	0.00
8	26.82	33.56	5.01	0.24	611	10	26.80	33.60	5.00	0.25	608	0.06
						20	26.79	33.80	4.94	0.26	593	0.12
50	26.79	34.40	4.69	0.28	549	30	26.79	34.00	4.87	0.26	578	0.18
63	24.10	34.63	4.67	0.43	454	50	26.79	34.40	4.69	0.28	549	0.29
78	16.24	34.63	2.92	1.21	257	75	18.00	34.63	3.92	0.77	296	0.40
94	13.60	34.63	0.31	2.38	201	100	13.04	34.65	0.35	2.37	189	0.46
117	12.40	34.70	0.43	2.35	174	150	11.77	34.73	0.53	2.38	160	0.55
138	11.98	34.74	0.46	2.38	163	200	11.22	34.70	0.63	2.50	152	0.63
187	11.32	34.72	0.63	2.37	153	250	10.51	34.68	0.74	2.54	142	0.71
208	11.12	34.70	0.62	2.60	151	300	10.09	34.63	0.59	2.55	138	0.78
223	10.86	34.74	0.79	2.52	143	400	9.37	34.62	0.29	2.85	127	0.92
263	10.38	34.66	0.70	2.55	141	500	8.13	34.54	0.16	2.93	115	1.05
310	10.00	34.62	0.57	2.55	138	600	7.01	34.53	0.20	3.00	100	1.17
372	9.62	34.61	0.42	2.85	133	700	6.07	34.46	0.27	3.21	94	1.28
435	8.92	34.64	0.18	2.85	120	800	5.44	34.42	0.41	3.42	90	1.38
516	7.96	34.53	0.16	2.95	114							
647	6.51	34.51	0.22	3.06	96							
785	5.52	34.41	0.37	3.40	91							
974	4.64	34.54	0.68	3.45	72							

HORIZON; October 10, 1955; 0722, 0802 GCT; 8°00'N, 120°47'W; sounding, 2150 fm; wind, 180°, force 3; weather, intermittent slight drizzle; sea, slight; wire angle, 26°, 40°.

H-16

0	27.00	34.22	4.96		569	0	27.00	34.22	4.96		569	0.00
9	26.89	34.23	4.72		564	10	26.87	34.23	4.72		564	0.06
38	26.68	34.26	4.71		556	20	26.76	34.25	4.72		559	0.11
68	26.57	34.30	5.04		550	30	26.70	34.25	4.71		557	0.17
77	25.98	34.50	4.52		518	50	26.66	34.27	4.84		554	0.28
95	19.66	34.45	3.52		349	75	26.20	34.46	4.65		527	0.41
120	14.46	34.60	0.62		221	100	18.60	34.47	3.28		322	0.52
141	12.88	34.70	0.24		183	150	12.63	34.74	0.24		175	0.64
161	12.32	34.79	0.23		166	200	11.57	34.65	0.50		162	0.74
184	11.86	34.67	0.40		166	250	10.80	34.64	0.65		150	0.82
231	11.04	34.64	0.61		154	300	10.25	34.61	0.66		142	0.89
270	10.51	34.63	0.67		146	400	9.38	34.57	0.35		132	1.04
318	10.09	34.60	0.65		140	500	8.29	34.54	0.13		117	1.18
						600	7.03	34.54	0.13		100	1.29
325	10.07	34.63	0.70		138	700	6.13	34.53	0.28		90	1.39
388	9.50	34.58	0.39		133	800	5.47	34.52	0.47		82	1.49
468	8.71	34.54	0.17		124	1000						(1.67)
586	7.14	34.54	0.12		102							
710	6.00	34.53	0.32		87							
889	4.92	34.52	0.60		77							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-17

HORIZON; October 10, 1955; 1739 GCT; 7°00'N, 120°46'W; sounding, 2230 fm; wind, 180°, force 4; weather, cloudy; sea, slight; wire angle, 25°.

0	26.44	34.52	4.64	0.37	530	0	26.44	34.52	4.64	0.37	530	0.00
55	26.40	34.58	4.63	0.42	524	10	26.42	34.53	4.64	0.38	529	0.05
81	26.05	34.67	4.87	0.36	508	20	26.42	34.54	4.64	0.39	528	0.11
90	25.87	34.74	4.68	0.43	498	30	26.41	34.55	4.63	0.40	527	0.16
103	21.26	34.65	3.43	0.97	376	50	26.41	34.57	4.63	0.40	525	0.26
112	17.42	34.54	2.61	1.43	288	75	26.14	34.64	4.83	0.36	512	0.39
126	14.26	34.66	0.53	2.58	213	100	24.05	34.70	4.00	0.66	448	0.51
138	13.15	34.70	0.48	2.58	187	150	12.79	34.73	0.47	2.62	178	0.68
151	12.76	34.73	0.47	2.62	178	200	11.82	34.70	0.76	2.32	163	0.76
205	11.70	34.70	0.78	2.29	161	250	10.78	34.68	0.75	2.30	146	0.84
244	10.89	34.68	0.76	2.26	147	300	10.30	34.66	0.70	2.66	139	0.91
290	10.42	34.67	0.72	2.65	141	400	9.41	34.60	0.58	2.74	130	1.06
342	9.85	34.63	0.64	2.66	135	500	8.31	34.54	0.18	2.79	118	1.20
413	9.31	34.60	0.57	2.75	128	600	7.08	34.50	0.22	3.36	103	1.32
487	8.47	34.54	0.18	2.76	120	700	6.25	34.48	0.41	3.05	94	1.42
584	7.24	34.51	0.21	3.37	105	800	5.50	34.48	0.48	3.08	85	1.53
732	5.99	34.47	0.45	3.00	92	1000	4.43	34.44	0.83	3.48	77	1.71
880	5.00	34.47	0.56	3.25	80							
1073	4.09	34.42	1.06	3.63	76							

H-18

HORIZON; October 11, 1955; 0244, 0310 GCT; 6°01'N, 120°46'W; sounding, 2380 fm; wind, 180°, force 4; weather, overcast; sea, moderate; wire angle, 07°, missing.

0	26.14	34.42	4.59		529	0	26.14	34.42	4.59		529	0.00
35	26.18	34.40	4.85		531	10	26.16	34.41	4.66		530	0.05
43	26.17	34.38	4.68		528	20	26.17	34.41	4.74		530	0.11
69	25.09	34.51	4.76		491	30	26.18	34.40	4.81		531	0.16
100	21.20	34.69	4.52		371	50	26.09	34.38	4.69		530	0.26
123	18.28	34.56	3.04		307	75	24.40	34.59	4.75		465	0.34
128	17.28	34.52	2.43		287	100	21.20	34.69	4.52		371	0.44
						150	13.28	34.58	0.81		198	0.59
134	16.20	34.54	1.80		262	200	11.14	34.61	1.23		158	0.69
148	13.44	34.60	0.67		200	250	10.35	34.65	1.28		141	0.76
163	12.58	34.53	0.99		189	300	9.95	34.58	1.23		140	0.83
257	10.28	34.65	1.28		140	400	9.14	34.55	0.93		130	0.98
306	9.88	34.56	1.20		140	500	8.32	34.50	0.49		121	1.11
363	9.40	34.51	1.02		137	600	7.20	34.49	0.42		106	1.24
440	8.90	34.60	0.85		122	700	6.36	34.48	0.53		96	1.35
526	8.07	34.49	0.42		118	800	5.69	34.46	0.72		89	1.45
628	6.90	34.49	0.42		102	1000	4.49	34.44	1.20		77	1.65
783	5.81	34.47	0.67		90							
934	4.85	34.43	1.06		82							
1133	3.99	34.46	1.44		71							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; October 11, 1955; 1131 GCT; 5°21'N, 120°31'W; sounding, 2310 fm; wind, 170°, force 5; weather, overcast; sea, rough; wire angle, 22°.

H-19

0	24.90	34.56	5.46	0.40	482	0	24.90	34.56	5.46	0.40	482	0.00
56	24.77	34.51	5.37	0.34	482	10	24.90	34.55	5.44	0.39	482	0.05
87	24.35	34.56	4.68	0.45	467	20	24.89	34.54	5.43	0.38	482	0.10
97	21.86	34.69	4.28	0.75	388	30	24.86	34.53	5.41	0.37	483	0.14
110	20.80	34.75	4.28	1.06	356	50	24.80	34.51	5.39	0.35	482	0.24
119	20.00	34.70	3.97	1.08	339	75	24.65	34.52	5.22	0.36	478	0.36
137	18.57	34.78	3.37	1.15	298	100	21.50	34.71	4.28	0.86	377	0.47
154	16.04	34.74	1.84	1.84	244	150	16.80	34.75	2.32	1.61	260	0.63
182	11.82	34.67	0.81	2.32	165	200	11.32	34.66	0.84	2.24	157	0.74
204	11.18	34.66	0.85	2.23	154	250	10.06	34.65	1.63	2.08	136	0.81
241	10.11	-	1.68	2.14	-	300	9.84	34.65	1.15	1.87	132	0.88
284	9.93	34.65	1.43	1.82	134	400	9.08	34.61	0.89	2.62	124	1.03
335	9.62	34.65	0.98	2.35	129	500	8.31	34.55	0.85	2.80	117	1.16
403	9.06	34.61a)	0.89	2.62	123	600	7.21	34.55	0.11	3.13	102	1.27
475	8.51	34.55	0.94	2.72	120	700	6.27	34.52	0.56	3.01	92	1.38
566	7.60	34.56	0.06	3.13	107	800	5.62	34.50	1.15	3.05	85	1.47
710	6.17	34.51	0.63	3.01	92	1000	4.66	34.48	1.30	3.20	76	1.66
851	5.28	34.49	1.31	3.09	82							
1045	4.43	34.48	1.29	3.24	74							

HORIZON; October 11-12, 1955; 2250, 2333, 0021 GCT; 4°01'N, 120°40'W; sounding, 2400 fm; wind, 170°, force 5; weather, cloudy; sea, rough; wire angle, 33°, 18°, 05°.

H-20

0	25.26	34.49	4.90	497	0	25.26	34.49	4.90	497	0.00
21	25.26	34.51	4.89	496	10	25.26	34.50	4.90	496	0.05
45	25.22	34.47	4.92	498	20	25.26	34.51	4.89	495	0.10
59	23.96	34.53	4.66	457	30	25.24	34.49	4.90	497	0.15
71	22.24	34.60	3.15	404	50	25.19	34.47	4.91	497	0.25
87	19.92	34.60	4.06	344	75	21.70	34.60	3.27	390	0.36
105	18.38	34.81	3.56	292	100	18.78	34.76	3.72	305	0.45
					150	13.35	34.78	1.50	185	0.57
124	-	34.87	3.53	-	200	12.40	34.79	0.94	167	0.67
142	13.82	34.78	1.70	194	250	11.62	34.79	0.74	153	0.75
190	12.56	34.79	1.04	170	300	10.72	34.72	0.89	142	0.82
242	11.74	34.79	0.70	155	400	9.40	34.66	0.97	125	0.97
288	10.94	34.74	1.24	144	500	7.88	34.57	0.52	109	1.09
343	10.11	34.67	1.58	136	600	6.85	34.50	0.81	101	1.21
416	9.14	34.65	0.81	122	700	6.21	34.50	1.00	93	1.31
494	7.95	34.58	0.52	109	800	5.65	34.49	1.14	86	1.41
598	6.87	34.50	0.80	101	1000	4.60	34.48	1.41	76	1.60
759	5.85	34.49	-	89						
801	5.63	34.51	-	84						
953	4.83	34.47	1.35	79						
1151	4.00	34.54	1.57	65						

a) Alternate value of 34.54‰.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	μg at/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn m

H-21

HORIZON; October 12, 1955; 0910, 0927 GCT; 3°01'N, 120°32'W; sounding, 2310 fm; wind, 155°, force 4; weather, overcast; sea, rough; wire angle, 28°, 30°.

0	24.38	34.42	4.89	0.43	477	0	24.38	34.42	4.89	0.43	477	0.00
12	24.39	34.49	5.15	0.29	473	10	24.39	34.48	5.11	0.30	473	0.05
25	22.00	34.55	5.17	0.64	401	20	22.90	34.54	5.16	0.50	426	0.09
51	20.98	34.57	4.83	0.82	373	30	21.50	34.55	5.06	0.72	389	0.13
63	20.88	34.60	4.75	0.85	370	50	21.00	34.57	4.86	0.81	374	0.21
78	20.46	34.67	4.65	0.91	353	75	20.53	34.66	4.66	0.91	356	0.30
94	19.90	34.74	4.40	0.96	334	100	17.90	34.83	3.16	1.26	279	0.38
105	16.37	34.86	2.28	1.52	242	150	13.31	34.91	1.11	1.92	175	0.49
120	14.32	34.92	1.49	1.84	194	200	12.62	34.89	1.31	2.03	163	0.59
179	12.88	34.90	1.05	1.98	168	250	12.00	34.81	0.73	2.27	158	0.67
212	12.48	34.88	1.37	2.08	162	300	11.37	34.77	0.80	2.21	150	0.74
251	11.98	34.81	0.72	2.27	158	400	9.40	34.65	0.45	2.70	126	0.89
294	11.49	34.78	0.80	2.18	151	500	7.98	34.59	0.49	2.90	109	1.01
355	10.48	34.71	0.70	2.57	138	600	6.78	34.52	1.04	2.75	98	1.13
						700	6.07	34.51	1.47	2.69	90	1.23
428	8.89	34.63	0.41	2.76	119							
514	7.76	34.58	0.54	2.93	106							
645	6.39	34.51	1.28	2.69	94							
771a)	5.60	34.51	1.85	2.70	85							

H-22

HORIZON; October 12, 1955; 1812, 1951 GCT; 2°10'N, 120°32'W; sounding, 2450 fm; wind, 210°, force 4; weather, cloudy; sea, moderate; wire angle, 00°, 00°.

0	21.00	34.58	4.63		373	0	21.00	34.58	4.63		373	0.00
25	20.77	34.67	4.65		362	10	20.91	34.62	4.64		369	0.04
55	20.43	34.72	4.59		349	20	20.81	34.66	4.65		363	0.07
						30	20.69	34.69	4.64		358	0.11
79	19.96	34.70	4.42		338	50	20.48	34.72	4.60		350	0.18
86	19.75	34.74	4.09		330	75	20.05	34.70	4.45		341	0.27
88	19.18	34.77	3.73		314	100	14.55	34.90	1.58		201	0.33
93	15.64	34.88	2.03		225	150	13.00	34.90	1.18		170	0.43
103	14.10	34.90	1.45		192	200	12.40	34.88	0.98		161	0.51
148	13.02	34.90	1.19		170	250	11.87	34.84	0.77		154	0.60
212	12.28	34.87	0.95		159	300	11.05	34.78	0.66		143	0.67
270	11.62	34.82	0.70		151	400	9.78	34.72	0.67		126	0.81
322	10.67	34.76	0.66		138	500	8.27	34.62	0.84		111	0.95
380	10.10	34.74	0.66		131	600	7.20	34.54	1.11		102	1.06
459	8.69	34.64	0.80		116	700	6.25	34.51	1.58		92	1.16
541	7.92	34.60	0.89		108	800	5.70	34.51	1.85		85	1.26
647	6.62	34.52	1.36		97	1000	4.56	34.52	1.82		73	1.44
800	5.70	34.51	1.85		85							
957	4.78	34.51	1.83		75							
1151	3.86	34.55	1.81		63							

a) Pretrip below 771 meters.

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; October 23, 1955; 2120 GCT; 9°58'N, 111°28'W; sounding, 1860 fm; wind, 225°, force 4; weather, precipitation within sight; sea, rough; wire angle, 25°.

H-23

0	26.40	33.21	4.72			0	26.40	33.21	4.72		623	0.00
13	26.42	33.21	4.53			10	26.41	33.21	4.57		623	0.06
22	26.35	33.26	4.53			20	26.36	33.25	4.53		618	0.12
31	23.10	34.27	3.48			30	23.20	34.26	3.48		455	0.18
43	20.48	34.49	2.74			50	17.50	34.61	0.93		286	0.25
53	16.68	34.65	0.43			75	13.91	34.77	0.25		197	0.31
67	14.26	34.76	0.16			100	12.88	34.79	0.18		175	0.36
94	13.04	34.78	0.18			150	11.89	34.82	0.23		155	0.44
142	12.00	34.83	0.23			200	11.22	34.76	0.26		147	0.52
190	11.32	34.78	0.26			250	10.70	34.71	0.27		143	0.60
242	10.75	34.71	0.28			300	10.20	34.68	0.19		136	0.67
286	10.31	34.69	0.20			400	9.00	34.62	0.10		122	0.80
338	9.84	34.65	0.18			500	7.64	34.53	0.14		109	0.93
410	8.84	34.61	0.09			600	6.71	34.50	0.16		98	1.04
481	7.83	34.54	0.13			700	5.89	34.50	0.30		88	1.14
578	6.94	34.49	0.16			800	5.28	34.50	0.51		82	1.24
720	5.74	34.51	0.35			1000	4.32	34.47	0.81		73	1.41
864	4.90	34.47	0.75									
1060	4.12	34.47	0.97									

HORIZON; October 24, 1955; 0547, 0707 GCT; 9°00'N, 111°25'W; sounding, 2140 fm; wind, 200°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°, 12°.

H-24

0	26.36	33.26	5.16			0	26.36	33.26	5.16		618	0.00
26	26.40	33.37	4.88			10	26.37	33.30	5.05		616	0.06
32	26.88	34.37	4.76			20	26.38	33.34	4.94		613	0.12
40	26.69	34.42	4.77			30	26.84	34.19	4.81		566	0.18
49	25.36	34.50	4.65			50	25.32	34.50	4.65		498	0.29
59	21.56	34.52	4.07			75	16.55	34.61	1.83		265	0.38
74	16.62	34.61	1.87			100	13.38	34.78	0.12		185	0.44
102	13.34	34.79	0.12			150	11.91	34.81	0.82		156	0.53
155	11.86	34.80	0.82			200	11.23	34.75	0.83		148	0.61
207	11.16	34.75	0.82			250	10.68	34.74	0.68		140	0.68
265	10.54	34.74	0.64			300	10.22	34.73	0.58		133	0.75
313	10.16	34.73	0.57			400	9.32	34.68	0.28		122	0.89
371	9.69	34.69	0.41			500	8.11	34.60	0.18		110	1.01
444	8.78	34.65	0.18			600	7.07	34.52	0.16		102	1.13
525	7.77	34.58	0.18			700	6.18	34.52	0.26		90	1.24
630	6.75	34.52	0.16			800	5.46	34.54	0.58		80	1.32
787	5.54	34.54	0.54			1000	4.24	34.53	1.06		68	1.50
945	4.51	34.53	0.97									
1150	3.85	34.53	1.15									

HORIZON; October 24, 1955; 1712 GCT; 8°00'N, 111°33'W; sounding, 2100 fm; wind, 225°, force 3; weather, cloudy; sea, slight; wire angle, 20°.

H-25

0	26.15	33.35	4.88			0	26.15	33.35	4.88		606	0.00
42	26.61	34.02	4.94			571	10	26.23	33.46	4.90	600	0.06
55	26.29	34.36	4.42			536	20	26.44	33.72	4.94	588	0.12
64	25.56	34.53	4.46			503	30	26.60	33.92	4.94	578	0.18
74	21.17	34.56	3.62			380	50	26.46	34.29	4.53	547	0.29
83	17.51	34.60	2.17			287	75	21.00	34.57	3.56	374	0.41
92	16.17	34.62	1.25			256	100	14.05	34.78	0.43	199	0.48
119	12.98	34.81	0.34			176	150	12.16	34.81	0.67	162	0.57
133	12.52	34.82	0.45			167	200	11.40	34.78	0.83	150	0.65
180	11.77	34.78	0.83			156	250	10.74	34.72	0.69	143	0.73
248	10.77	34.72	0.70			143	300	10.35	34.71	0.59	136	0.80
294	10.40	34.72	0.62			136	400	9.41	34.66	0.22	125	0.94
349	9.87	34.67	0.35			132						
421a)	9.23	34.65	0.19			123						

a) Pretrip below 421 meters.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-27

HORIZON; October 26, 1955; 0638, 0700 GCT; 10°00'N, 111°08'W; sounding, 1980 fm; wind, 060°, force 3; weather, partly cloudy; sea, smooth; wire angle, 00°, 00°.

0	26.64	33.17	4.38		633	0	26.64	33.17	4.38		633	0.00
14	26.51	33.19	4.85		627	10	26.54	33.18	4.81		630	0.06
23	26.27	33.30	4.93		611	20	26.35	33.26	4.92		618	0.13
34	25.80	33.60	4.69		577	30	26.00	33.50	4.85		590	0.19
						50	21.50	34.39	2.40		400	0.28
49	21.66	34.38	2.46		404	75	14.79	34.72	0.22		219	0.36
59	19.59	34.50	1.82		343	100	13.52	34.79	0.14		188	0.41
72	15.57	34.65	0.36		240	150	12.33	34.79	0.19		165	0.50
93	13.74	34.79	0.14		192	200	11.27	34.75	0.30		150	0.59
116	13.16	34.79	0.16		181	250	10.61	34.69	0.21		143	0.66
180	11.64	34.78	0.36		154	300	10.11	34.64	0.17		137	0.73
267	10.44	34.69	0.19		140	400	8.87	34.60	0.10		121	0.87
316	9.96	34.63	0.15		136	500	7.60	34.52	0.12		109	0.99
375	9.22	34.61	0.11		125	600	6.70	34.51	0.14		97	1.11
453	8.13	34.56	0.10		113	700	5.90	34.52	0.27		86	1.20
536	7.27	34.51	0.13		104	800	5.19	34.53	0.60		77	1.29
644	6.33	34.52	0.16		92	1000	4.38	34.53	0.90		69	1.46
803	5.15	34.53	0.64		77							
956	4.48	34.53	0.85		70							
1161	4.07	34.53	1.07		66							

H-28

HORIZON; October 28, 1955; 0505 GCT; 5°40'N, 111°00'W; sounding, 2210 fm; wind, 190°, force 4; weather, overcast; sea, rough; wire angle, 26°.

0	26.00	34.14	4.73		543	0	26.00	34.14	4.73		543	0.00
47	26.03	34.13	4.36		545	10	26.00	34.14	4.65		543	0.05
79	26.03	34.14	4.64		544	20	26.01	34.14	4.57		544	0.11
89	26.00	34.40	4.52		525	30	26.01	34.14	4.49		544	0.16
93	24.92	34.58	4.24		481	50	26.03	34.13	4.39		545	0.27
97	22.67	34.60	3.32		415	75	26.03	34.14	4.60		545	0.41
102	19.95	34.64	1.68		342	100	21.65	34.62	2.70		388	0.52
108	18.16	34.66	2.05		297	150	13.47	34.78	0.50		187	0.68
117	15.49	34.69	1.02		235	200	11.78	34.79	0.74		155	0.76
180	12.41	34.78	0.65		167	250	10.86	34.74	0.80		143	0.84
233	11.10	34.76	0.81		145	300	10.12	34.68	0.80		135	0.91
275	10.50	34.72	0.80		138	400	9.03	34.60	0.55		124	1.05
326	9.76	34.64	0.79		132	500	8.00	34.58	0.19		110	1.18
394	9.10	34.60	0.61		124	600	6.98	34.53	0.27		100	1.29
465	8.34	34.58	0.19		115	700	6.09	34.49	0.60		92	1.40
562	7.38	34.56	0.19		102	800	5.32	34.51	0.86		81	1.49
706	6.02	34.48	0.62		91	1000	4.39	34.52	1.42		70	1.67
849	5.09	34.51	0.97		78							
1044	4.28	34.52	1.48		69							

H-29

HORIZON; November 3, 1955; 2200 GCT; 7°54'N, 89°15'W; sounding, 1840 fm; wind, 250°, force 4; weather, slight rain; sea, rough; wire angle, 09°.

0	25.60	32.16	5.08	0.25	672	0	25.60	32.16	5.08	0.25	672	0.00
15	25.63	32.70	5.07	0.36	637	10	25.61	32.52	5.07	0.32	650	0.07
35	21.54	34.14	2.91	1.27	419	20	25.57	33.48	5.07	0.43	579	0.13
46	17.31	34.65	1.68	1.66	279	30	25.00	33.69	4.77	0.64	547	0.18
60	15.82	34.69	0.92	2.00	242	50	16.89	34.66	1.51	1.75	268	0.27
70	14.74	34.70	0.98	2.11	219	75	14.60	34.74	0.89	2.06	213	0.33
80	14.48	34.81	0.76	2.00	205	100	13.79	34.86	1.31	2.24	188	0.38
112	13.54	34.86	1.61	2.27	183	150	12.76	34.80	1.25	2.12	173	0.47
168	12.48	34.79	1.06	2.07	169	200	12.11	34.78	0.95	2.20	162	0.55
224	11.93	34.79	0.89	2.28	159	250	11.64	34.77	0.74	2.33	154	0.64
267	11.43	34.74	0.59	2.36	153	300	11.04	34.70	0.39	2.43	149	0.71
315	10.86	34.69	0.28	2.48	147	400	9.68	34.62	0.18	2.80	132	0.86
373	10.13	34.63	0.21	2.71	139	500	7.95	34.57	0.10	3.09	110	0.99
449	8.80	34.60	0.12	2.94	121	600	6.95	34.52	0.21	3.12	100	1.10
526	7.59	34.55	0.12	3.12	106	700	6.26	34.51	0.34	3.29	92	1.21
635	6.72	34.51	0.26	3.13	98	800	5.56	34.51	0.43	3.54	83	1.32
787	5.64	34.51	0.40	3.54	85	1000	4.61	34.48	0.84	3.32	75	1.49
943	4.85	34.49	0.72	3.38	78							
1142	4.05	34.47	1.12	3.22	70							

336

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT_3	Z	T	S	O ₂	PO ₄ -P	δT_3	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m

SIO

EASTROPIC

HORIZON; November 4, 1955; 1023 GCT; 9°29'N, 88°25'W; sounding, 1750 fm; wind, 050°, force 4; weather, cloudy; sea, rough; wire angle, 22°.

H-30

0	25.86	33.06	4.44	0.86	617	0	25.86	33.06	4.44	0.86	617	0.00
24	25.26	33.64	4.58	0.90	558	10	25.83	33.22	4.47	0.86	606	0.06
28	22.82	34.00	3.50	1.23	463	20	25.70	33.46	4.49	0.87	584	0.12
33	19.37	34.30	2.25	1.69	353	30	21.00	34.20	2.76	1.48	400	0.17
37	15.98	34.69	0.95	2.06	246	50	14.49	34.74	0.86	2.18	212	0.23
42	14.98	34.69	0.65	2.23	224	75	13.70	34.87	0.70	2.18	185	0.28
51	14.44	34.75	0.89	2.17	209	100	13.25	34.86	0.53	2.29	178	0.32
80	13.58	34.87	0.64	2.20	183	150	12.69	34.80	0.36	2.47	172	0.41
139	12.78	34.81	0.42	2.48	172	200	12.18	34.74	0.26	2.45	166	0.50
185	12.33	34.74	0.26	2.43	169	250	11.52	34.74	0.36	2.47	154	0.58
251	11.51	34.74	0.36	2.47	154	300	10.85	34.70	0.20	2.53	146	0.66
297	10.90	34.70	0.24	2.52	146	400	9.31	34.59	0.09	2.87	129	0.81
351	10.08	34.65	0.09	2.84	137	500	8.04	34.54	0.09	3.31	114	0.94
425	8.97	34.56	0.10	2.89	125	600	6.93	34.51	0.09	3.38	101	1.05
503	8.02	34.54	0.09	3.31	113	700	6.18	34.50	0.10	3.22	92	1.16
603	6.90	34.51	0.09	3.37	100	800	5.52	34.50	0.20	3.19	85	1.26
753	5.83	34.50	0.14	3.18	88	1000	4.42	34.45	0.50	3.37	76	1.43
899	4.90	34.47	0.32	3.29	79							
1102	4.08	34.45	0.72	3.41	72							

HORIZON; November 5, 1955; 0034 GCT; 10°52'N, 88°02'W; sounding, 1475 fm; wind, 100°, force 3; weather, partly cloudy; sea, slight; wire angle, 15°.

H-31

0	26.71	32.61	5.32	0.39	675	0	26.71	32.61	5.32	0.39	675	0.00
10	26.64	32.68	5.29	0.41	668	10	26.64	32.68	5.29	0.41	668	0.07
19	23.86	33.62	3.97	0.71	520	20	23.60	33.66	3.85	0.77	510	0.13
29	20.88	34.38	2.26	1.64	384	30	20.80	34.39	2.20	1.68	382	0.17
38	19.64	34.42	1.45	2.05	351	50	16.94	34.64	0.95	2.41	271	0.24
48	17.37	34.60	1.00	2.42	283	75	14.87	34.77	0.84	2.51	218	0.30
58	16.24	34.70	0.89	2.37	251	100	13.99	34.80	0.72	2.55	196	0.35
72	15.04	34.76	0.84	2.51	221	150	13.15	34.77	0.51	2.65	182	0.44
120	13.53	34.79	0.61	2.58	188	200	12.59	34.75	0.42	2.78	174	0.54
195	12.65	34.75	0.43	2.77	175	250	12.00	34.73	0.39	2.84	164	0.62
263	11.81	34.72	0.39	2.87	161	300	11.37	34.69	0.22	3.01	156	0.71
311	11.27	34.68	0.17	3.04	154	400	9.86	34.61	0.10	3.33	136	0.86
369	10.41	34.63	0.12	3.22	144	500	8.06	34.50	0.09	3.56	117	0.99
441	8.95	34.56	0.09	3.48	126	600	6.97	34.49	0.11	3.80	103	1.11
523	7.82	34.49	0.09	3.59	115	700	6.21	34.48	0.12	3.84	94	1.21
626	6.69	34.49	0.11	3.83	99	800	5.61	34.46	0.19	3.83	88	1.31
777	5.72	34.46	0.18	3.83	89	1000	4.44	34.43	0.51	3.82	77	1.50
931	4.77	34.42	0.39	3.80	82							
1130	4.02	34.45	0.72	3.90	72							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-32

HORIZON; November 5, 1955; 1812, 1907 GCT; 10°17'N, 86°33'W; sounding, 2080 fm; wind, 025°, force 4; weather, cloudy; sea, moderate; wire angle, 23°, 28°.

0	26.68	31.45	5.15	0.29	750	0	26.68	31.45	5.15	0.29	750	0.00
10	26.60	31.56	5.13	0.43	740	10	26.60	31.56	5.13	0.43	740	0.07
16	23.97	33.55	3.40	1.12	528	20	22.83	33.91	2.98	1.45	470	0.14
23	22.19	34.11	2.78	1.57	439	30	20.60	34.37	3.42	1.42	378	0.18
33	19.58	34.47	3.76	1.30	345	50	16.59	34.63	1.07	2.18	263	0.24
42	17.95	34.60	1.41	2.10	297	75	14.77	34.79	0.61	2.33	212	0.30
51	16.55	34.63	1.06	2.19	263	100	14.04	34.84	0.56	2.35	195	0.35
81	14.54	34.81	0.58	2.34	207	150	13.16	34.86	0.50	2.41	176	0.44
136	13.34	34.87	0.50	2.39	179	200	12.52	34.80	0.53	2.48	169	0.53
181	12.72	34.81	0.56	2.48	171	250	11.91	34.78	0.36	2.47	159	0.62
247	11.94	34.78	0.37	2.46	159	300	10.98	34.71	0.20	2.75	147	0.70
292	11.14	34.72	0.22	2.70	149	400	9.06	34.60	0.11	3.02	124	0.84
344	9.85	34.69	0.12	2.98	130	500	7.96	34.51	0.09	3.21	114	0.97
414	8.94	34.58	0.11	3.02	124	600	7.18	34.51	0.19	3.38	104	1.09
489	8.05	34.51	0.09	3.18	117	700	6.46	34.48	0.20	3.37	96	1.20
584	7.24	34.51	0.19	3.37	104	800	5.69	34.46	0.30	3.45	90	1.30
						1000	4.64	34.46	0.73	3.38	77	1.49
724	6.22	34.47	0.21	3.37	95							
871	5.22	34.44	0.43	3.50	85							
1070	4.36	34.49	0.93	3.25	72							

H-33

HORIZON; November 6, 1955; 0522 GCT; 9°12'N, 87°06'W; sounding, 1690 fm; wind, 330°, force 3; weather, clear; sea, slight; wire angle, 15°.

0	26.45	32.76	5.08	0.62	656	0	26.45	32.76	5.08	0.62	656	0.00
9	26.45	32.79	5.29	0.56	654	10	26.45	32.80	5.29	0.64	653	0.07
18	26.08	33.08	5.06	0.66	623	20	25.05	33.48	4.55	0.93	564	0.13
28	21.07	34.25	2.93	1.48	398	30	20.20	34.39	2.65	1.58	366	0.17
37	17.50	34.63	1.62	1.78	284	50	15.26	34.66	0.74	2.21	232	0.23
47	15.72	34.64	0.92	2.21	243	75	13.72	34.74	0.65	2.24	195	0.29
56	14.73	34.69	0.71	2.25	220	100	13.21	34.77	0.50	2.38	184	0.33
89	13.35	34.76	0.55	2.34	187	150	12.67	34.79	0.38	2.46	172	0.42
126	12.96	34.78	0.89	2.43	178	200	12.07	34.78	0.32	2.46	162	0.51
201	12.05	34.78	0.32	2.46	162	250	11.47	34.74	0.32	2.63	154	0.60
258	11.35	34.72	0.31	2.65	153	300	10.93	34.68	0.23	2.70	149	0.67
307	10.86	34.67	0.21	2.70	148	400	9.35	34.58	0.09	3.00	130	0.82
362	9.99	34.61	0.08	2.93	138	500	7.84	34.54	0.10	3.17	111	0.95
436	8.75	34.54	0.10	3.04	124	600	6.71	34.50	0.10	3.35	98	1.06
512	7.70	34.54	0.10	3.21	108	700	6.01	34.46	0.12	3.46	92	1.16
615	6.59	34.49	0.10	3.35	98	800	5.40	34.45	0.25	3.55	86	1.26
770	5.58	34.45	0.18	3.53	88	1000	4.43	34.47	0.62	3.46	75	1.45
921	4.74	34.46	0.49	3.54	78							
1120	4.00	34.49	0.83	3.26	68							

H-34

HORIZON; November 6, 1955; 0045 GCT; 8°41'N, 86°00'W; sounding, 1605 fm; wind, 200°, force 5; weather, intermittent slight drizzle; sea, moderate; wire angle, 08°.

0	25.91	32.70	5.18	0.60	645	0	25.91	32.70	5.18	0.60	645	0.00
17	25.22	33.57	4.67	0.82	562	10	25.85	33.16	5.14	0.61	610	0.06
26	19.29	34.51	2.22	1.62	335	20	22.20	34.22	3.31	1.31	431	0.11
33	17.77	34.69	1.54	1.82	286	30	18.15	34.66	1.72	1.78	297	0.15
37	17.02	34.70	1.24	1.97	268	50	15.60	34.82	0.78	2.07	229	0.20
53	15.43	34.82	0.74	2.08	224	75	14.55	34.84	0.68	2.05	205	0.26
78	14.45	34.84	0.68	2.06	203	100	13.85	34.88	0.67	2.35	188	0.31
102	13.78	34.88	0.66	2.38	187	150	13.13	34.83	0.55	2.29	177	0.40
155	13.10	34.83	0.54	2.28	177	200	12.52	34.79	0.42	2.30	170	0.49
202	12.49	34.79	0.41	2.31	169	250	11.76	34.75	0.32	2.38	158	0.58
262	11.53	34.74	0.29	2.42	155	300	10.97	34.70	0.21	2.56	148	0.65
311	10.82	34.69	0.20	2.60	146	400	9.52	34.61	0.09	2.94	131	0.79
368	10.00	34.63	0.12	2.82	137	500	8.03	34.52	0.16	3.14	116	0.93
444	8.80	34.58	0.08	3.06	122	600	6.88	34.47	0.17	3.16	103	1.06
525	7.68	34.47	0.17	3.15	114	700	6.02	34.50	0.40	3.18	90	1.15
629	6.57	34.47	0.22	3.14	99	800	5.46	34.51	0.58	3.28	83	1.25
784	5.54	34.52	0.53	3.26	83	1000	4.63	34.46	0.93	3.37	77	1.44
935	4.88	34.45	0.82	3.41	81							
1140	4.16	34.51	1.12	3.14	69							

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OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

S10

EASTROPIC

HORIZON; November 10, 1955; 2222 GCT; 9°00'N, 84°32'W; sounding, 800 fm; wind, 225°, force 3; weather, cloudy; sea, smooth; wire angle, 11°.

H-35

0	26.58	30.43	4.88	0.29	829	0	26.58	30.43	4.88	0.29	829	0.00
14	22.70	34.05	2.87	1.39	456	10	26.52	33.02	4.83	0.31	634	0.07
24	19.93	34.49	1.94	1.99	353	20	21.65	34.22	2.53	1.62	416	0.13
34	18.63	34.78	1.43	2.22	300	30	19.20	34.62	1.61	2.12	325	0.16
44	17.39	34.84	0.96	2.42	266	50	16.80	34.89	0.73	2.52	250	0.22
53	16.54	34.90	0.65	2.54	293	75	15.05	34.90	0.76	2.56	211	0.28
63	15.63	34.92	0.80	2.50	222	100	14.26	34.93	0.73	2.58	192	0.33
72	15.15	34.90	0.76	2.55	213	150	13.43	34.95	0.55	2.62	175	0.42
132	13.66	34.96	0.57	2.60	178	200	12.72	34.90	0.49	2.77	165	0.51
182	13.01	34.92	0.53	2.71	169	250	11.72	34.83	0.31	3.00	152	0.59
263	11.43	34.81	0.28	3.05	147	300	10.63	34.78	0.20	3.25	136	0.67
311	10.44	34.78	0.19	3.29	133	400	9.36	34.74	0.11	3.40	118	0.79
367	9.67	34.76	0.11	3.41	122	500	8.30	34.66	0.11	3.56	108	0.92
443	8.94	34.69	0.11	3.41	116	600	7.35	34.69	0.18	3.67	93	1.03
522	8.06	34.65	0.11	3.60	106	700	6.51	34.67	0.31	3.74	84	1.12
626	7.14	34.69	0.21	3.68	90	800	5.82	34.64	0.48	3.81	77	1.21
782	5.92	34.65	0.44	3.80	77	1000	4.70	34.54	0.88	3.82	73	1.38
933	5.01	34.56	0.74	3.84	74							
1129	4.03	34.51	1.16	3.68	67							

HORIZON; November 11, 1955; 0705 GCT; 7°58'N, 84°10'W; sounding, 1050 fm; wind, 230°, force 4; weather, overcast; sea, rough; wire angle, 23°.

H-36

0	25.89	33.38	4.75	0.89	596	0	25.89	33.38	4.75	0.89	596	0.00
17	25.92	33.35	4.73	0.84	598	10	25.91	33.36	4.74	0.86	598	0.06
23	25.89	33.38	4.71	0.87	596	20	25.90	33.37	4.72	0.86	597	0.12
32	22.11	34.03	3.12	1.52	442	30	23.60	33.84	3.85	1.25	496	0.17
46	19.36	34.56	1.67	2.07	333	50	18.07	34.68	1.32	2.22	294	0.25
56	17.58	34.70	1.23	2.28	281	75	16.61	34.78	1.00	2.41	253	0.32
74	16.62	34.78	1.00	2.41	253	100	15.66	34.88	1.00	2.43	225	0.38
115	15.26	34.90	1.01	2.45	215	150	14.48	34.91	0.85	2.54	198	0.49
138	14.70	34.90	0.89	2.50	203	200	13.51	34.94	0.53	2.68	177	0.59
183	13.88	34.94	0.63	2.64	184	250	12.30	34.90	0.35	2.85	157	0.67
249	12.31	34.90	0.35	2.85	157	300	11.13	34.80	0.20	3.15	144	0.75
291	11.30	34.81	0.21	3.10	145	400	8.80	34.70	0.17	3.46	113	0.89
342	10.23	34.76	0.14	3.31	131	500	7.00	34.58	0.27	3.71	96	0.99
410	8.50	34.69	0.16	3.49	110	600	6.38	34.58	0.36	3.83	88	1.10
483	7.17	34.59	0.25	3.67	98	700	5.93	34.58	0.48	3.88	83	1.19
578	6.50	34.58	0.34	3.81	90	800	5.45	34.58	0.64	3.89	77	1.29
714	5.90	34.58	0.51	3.88	82	1000	4.54	34.56	0.91	3.79	68	1.45
849	5.16	34.58	0.74	3.88	74							
1035	4.42	34.55	0.94	3.76	68							

HORIZON; November 11, 1955; 1623, 1647 GCT; 6°55'N, 83°38'W; sounding, 1045 fm; wind, 190°, force 3; weather, intermittent moderate drizzle; sea, moderate; wire angle, 02°, 02°.

H-37

0	25.68	32.94	4.80	0.82	623	0	25.68	32.94	4.80	0.82	623	0.00
24	24.48	33.40	4.25	1.01	553	10	25.68	33.04	4.79	0.82	614	0.06
33	23.05	33.70	3.64	1.12	492	20	25.60	33.09	4.73	0.83	609	0.12
43	21.64	34.20	2.55	1.61	417	30	23.38	33.62	3.81	1.07	506	0.18
52	20.96	34.22	2.49	1.52	398	50	21.05	34.21	2.50	1.53	401	0.28
62	-	-	-	-	-	75	15.65	34.85	1.06	2.20	227	0.37
71	16.86	34.69	1.25	2.12	265	100	14.27	34.95	0.83	2.28	191	0.42
						150	13.60	34.92	0.72	2.38	180	0.51
106	14.12	34.96	0.81	2.29	187	200	12.97	34.87	0.49	2.57	172	0.61
155	13.56	34.92	0.70	2.40	180	250	12.18	34.82	0.47	2.62	160	0.69
208	12.88	34.86	0.46	2.59	170	300	11.01	34.70	0.21	2.73	148	0.77
266	11.80	34.81	0.46	2.63	154	400	9.28	34.67	0.12	3.26	123	0.92
314	10.75	34.69	0.17	2.80	145	500	7.77	34.62	0.16	3.34	104	1.04
373	9.74	34.67	0.13	3.26	130	600	6.79	34.57	0.26	3.48	94	1.15
449	8.44	34.67	0.14	3.28	110	700	6.02	34.55	0.50	3.50	86	1.25
531	7.47	34.60	0.18	3.38	101	800	5.43	34.54	0.74	3.42	80	1.34
638	6.50	34.56	0.30	3.50	91	1000	4.55	34.57	1.04	3.21	67	1.51
796	5.47	34.54	0.74	3.43	80							
950	4.73	34.56	0.96	3.21	71							
1153	4.10	34.60	1.26	3.22	61							

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SIO	OBSERVED					COMP	INTERPOLATED					COMPUTED	
	Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
EASTROPIC	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m
H-38	HORIZON; November 12, 1955; 0050 GCT; 5°55'N, 83°26'W; sounding, 1790 fm; wind, 185°, force 3; weather, overcast; sea, slight; wire angle, 24°.												
	0	25.70	32.86	4.91	0.71	627	0	25.70	32.86	4.91	0.71	627	0.00
	23	25.75	32.86	4.91	0.55	630	10	25.71	32.86	4.91	0.68	628	0.06
	32	25.70	32.95	4.89	0.59	621	20	25.74	32.86	4.91	0.63	629	0.13
	36	25.56	33.02	4.73	0.68	612	30	25.73	32.90	4.89	0.56	625	0.19
	45	20.57	34.36	2.03	1.68	379	50	18.70	34.65	1.39	1.94	311	0.28
	68	15.41	34.89	0.84	2.21	220	75	14.70	34.89	0.81	2.23	204	0.35
	90	14.24	34.88	0.77	2.23	196	100	14.00	34.90	0.74	2.26	189	0.40
	114	13.77	34.94	0.73	2.29	182	150	13.33	34.93	0.67	2.33	174	0.49
	136	13.48	34.94	0.71	2.30	176	200	12.73	34.86	0.52	2.48	167	0.58
	180	13.01	34.88	0.58	2.44	172	250	11.59	34.77	0.31	2.62	153	0.66
	243	11.76	34.78	0.34	2.61	155	300	10.55	34.72	0.20	2.82	139	0.73
	286	10.86	34.73	0.20	2.75	144	400	8.89	34.66	0.17	3.12	117	0.87
	338	9.70	34.70	0.16	3.00	127	500	7.82	34.65	0.19	3.32	102	0.99
	406	8.81	34.65	0.17	3.13	117	600	6.90	34.53	0.41	3.43	98	1.10
	480	8.01	34.67	0.17	3.28	103	700	6.11	34.52	0.65	3.24	89	1.20
	576	7.07	34.54	0.36	3.44	100	800	5.45	34.52	0.82	3.21	82	1.29
	721	5.94	34.52	0.72	3.21	87	1000	4.50	34.55	1.11	3.23	69	1.47
	866	5.03	34.52	0.88	3.22	77							
	1060	4.33	34.58	1.29	3.22	65							
H-39	HORIZON; November 12, 1955; 0845 GCT; 5°07'N, 82°52'W; sounding, 1950 fm; wind, 200°, force 4; weather, overcast; sea, slight; wire angle, 21°.												
	0	25.71	32.96	4.76	0.75	620	0	25.71	32.96	4.76	0.75	620	0.00
	14	25.71	32.90	4.84	0.42	621	10	25.70	32.92	4.81	0.50	622	0.06
	28	25.75	33.06	4.79	0.53	615	20	25.72	32.97	4.83	0.50	620	0.12
	37	25.52	33.48	4.68	0.74	578	30	25.73	33.12	4.77	0.58	610	0.19
	46	22.76	34.00	3.49	1.30	462	50	21.70	34.18	3.07	1.44	421	0.29
	56	19.60	34.53	2.33	1.71	341	75	16.02	34.81	1.12	2.17	238	0.37
	65	17.13	34.74	1.66	2.01	268	100	14.64	34.86	0.82	2.22	205	0.43
	75	16.02	34.81	1.12	2.17	238	150	13.66	34.86	0.67	2.28	185	0.53
	152	13.61	34.87	0.67	2.29	184	200	12.85	34.86	0.56	2.53	170	0.62
	168	13.37	34.88	0.64	2.40	178	250	12.04	34.80	0.40	2.62	160	0.71
	245	12.11	34.81	0.43	-	160	300	11.10	34.76	0.23	2.76	146	0.78
	288	11.33	34.78	0.24	-	148	400	8.87	34.66	0.15	3.35	117	0.92
	341	9.98	34.71	0.22	-	130	500	7.67	34.56	0.26	3.54	107	1.05
	408	8.75	34.65	0.14	3.37	116	600	7.06	34.55	0.42	3.52	99	1.16
	479	7.87	34.58	0.22	3.53	108	700	6.21	34.54	0.57	3.42	89	1.26
	574	7.26	34.55	0.38	3.53	102	800	5.56	34.52	0.75	3.46	83	1.35
	714	6.13	34.54	0.59	3.41	88	1000	4.54	34.55	1.14	3.27	69	1.53
	856	5.17	34.52	0.87	3.47	78							
	1048	4.42	34.56	1.20	3.17	68							
H-40	HORIZON; November 12, 1955; 1736 GCT; 4°02'N, 82°48'W; sounding, 1570 fm; wind, 200°, force 4; weather, cloudy; sea, rough; wire angle, 15°.												
	0	25.76	32.25	4.91	0.45	670	0	25.76	32.25	4.91	0.45	670	0.00
	29	25.53	32.45	4.97	0.62	651	10	25.73	32.27	4.93	0.50	669	0.07
	47	23.45	33.80	3.89	1.04	495	20	25.68	32.32	4.95	0.54	666	0.13
	53	18.94	34.58	2.00	1.79	322	30	25.52	32.46	4.96	0.62	649	0.20
	61	16.81	34.69	1.64	2.00	264	50	22.00	34.14	3.16	1.32	452	0.31
	65	16.43	34.85	1.54	2.11	244	75	15.99	34.88	1.47	2.10	232	0.40
	78	15.77	34.89	1.44	2.11	226	100	14.57	34.91	1.45	2.14	200	0.45
	105	14.40	34.92	1.44	2.17	196	150	14.04	34.94	1.22	2.24	177	0.54
	153	14.01	34.94	1.20	2.26	187	200	13.36	34.94	0.90	2.39	174	0.64
	210	13.14	34.94	0.79	2.44	170	250	12.30	34.86	0.40	2.75	160	0.72
	262	12.06	34.83	0.34	2.78	157	300	11.01	34.74	0.26	2.82	146	0.80
	310	10.72	34.72	0.25	2.85	142	400	8.86	34.61	0.26	3.14	121	0.95
	366	9.42	34.65	0.25	3.13	126	500	7.77	34.59	0.30	3.32	106	1.07
	441	8.30	34.59	0.30	3.14	114	600	7.00	34.56	0.48	3.41	97	1.18
	520	7.65	34.59	0.31	3.36	104	700	6.24	34.54	0.63	3.41	90	1.29
	622	6.86	34.55	0.50	3.41	96	800	5.57	34.52	0.88	3.42	83	1.39
	775	5.74	34.53	0.83	3.41	84	1000	4.50	34.52	1.29	3.42	72	1.56
340	924	4.86	34.52	1.15	3.43	75							
	1120	4.04	34.52	1.50	3.41	67							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P µg at/L	δ _T 10 ⁻⁵ cm ³ /g	Z m	T °C	S ‰	O ₂ ml/L	PO ₄ -P µg at/L	δ _T 10 ⁻⁵ cm ³ /g	ΔD dyn m

SIO

EASTROPIC

HORIZON; November 13, 1955; 0205 GCT; 4°03'N, 81°45'W; sounding, 1250 fm; wind, 270°, force 4; weather, overcast; sea, slight; wire angle, 31°.

H-41

0	26.02	31.53	4.81	0.33	742	0	26.02	31.53	4.81	0.33	742	0.00
17	26.04	31.60	5.10	0.32	729	10	26.03	31.57	4.98	0.32	738	0.07
27	25.76	32.05	4.91	0.46	688	20	26.00	31.70	5.10	0.37	726	0.15
34	23.00a)	33.13	4.12	0.87	532	30	25.00	33.14	4.67	0.57	587	0.21
42	19.78	34.42	2.30	1.72	354	50	18.80	34.56	1.98	1.82	320	0.30
51	18.75	34.57	1.97	1.83	319	75	15.07	34.90	1.32	2.08	209	0.37
60	16.50	34.79	1.45	2.02	250	100	14.57	34.92	1.21	2.10	197	0.42
67	15.32	34.88	1.37	2.07	218	150	13.70	34.91	1.13	2.24	183	0.52
122	14.25	34.92	1.14	2.12	193	200	13.00	34.94	0.91	2.40	166	0.61
153	13.66	34.91	1.13	2.26	182	250	12.30	34.89	0.44	2.61	157	0.69
226	12.71	34.94	0.78	2.49	161	300	11.22	34.77	0.29	2.74	146	0.77
269	12.02	34.84	0.29	2.66	156	400	9.04	34.64	0.25	3.06	122	0.92
317	10.85	34.76	0.29	2.77	141	500	8.23	34.62	0.31	3.17	111	1.04
381	9.32	34.69	0.25	3.02	122	600	7.33	34.57	0.41	3.27	101	1.16
450	8.68	34.62	0.26	3.12	117	700	6.42	34.54	0.60	3.32	92	1.26
536	7.93	34.62	0.35	3.21	106	800	5.57	34.57	0.95	3.34	79	1.35
666	6.72	34.54	0.51	3.30	96	1000						(1.52)
790	5.67	34.56	0.89	3.33	81							
970	4.82	34.58	1.17	3.32	70							

HORIZON; November 13, 1955; 1219, 1245 GCT; 4°03'N, 80°46'W; sounding, 1080 fm; wind, 230°, force 4; weather, overcast; sea, rough; wire angle, 17°, 20°.

H-42

0	25.99	32.05	4.91	0.45	694	0	25.99	32.05	4.91	0.45	694	0.00
33	26.06	32.38	4.91	0.42	673	10	26.02	32.16	4.91	0.44	687	0.07
51	20.31	34.27	2.71	1.52	378	20	26.04	32.27	4.91	0.43	680	0.14
56	17.48	34.73	1.79	1.97	276	30	26.06	32.37	4.91	0.42	674	0.20
62	17.08	34.79	1.77	2.08	263	50	20.42	34.25	2.74	1.51	382	0.31
71	16.13	34.90	1.67	2.17	234	75	15.76	34.92	1.57	2.02	224	0.39
80	15.63	34.92	1.54	2.00	222	100	14.37	34.94	1.21	2.22	194	0.44
99	14.39	34.94	1.22	2.21	194	150	13.68	34.94	1.03	2.32	180	0.53
150	13.68	34.94	1.03	2.32	180	200	13.11	34.93	1.14	2.35	170	0.63
192	13.26	34.93	1.17	2.32	172	250	12.38	34.91	0.50	2.67	157	0.71
255	12.30	34.90	0.46	2.69	157	300	11.00	34.75	0.30	2.80	144	0.79
302	10.94	34.75	0.30	2.81	143	400	8.90	34.68	0.18	3.16	116	0.93
358	9.64	34.74	0.25	3.03	123	500	7.70	34.61	0.28	3.34	104	1.05
432	8.44	34.64	0.18	3.24	112	600	7.01	34.60	0.49	3.36	95	1.16
510	7.65	34.61	0.28	3.34	103	700	6.30	34.53	0.70	3.46	92	1.26
610	6.98	34.60	0.51	3.36	94	800	5.59	34.52	0.87	3.50	83	1.35
762	5.85	34.52	0.81	3.50	86	1000	4.45	34.57	1.31	3.36	67	1.53
910	4.92	34.55	1.12	3.45	73							
1102	4.15	34.58	1.42	3.28	63							

HORIZON; November 13, 1955; 2008 GCT; 4°02'N, 79°46'W; sounding, 1490 fm; wind, 220°, force 4; weather, overcast; sea, slight; wire angle, 14°.

H-43

0	26.15	32.32	5.10	0.46	680	0	26.15	32.32	5.10	0.46	680	0.00
23	26.04	32.31	5.08	0.46	677	10	26.11	32.32	5.09	0.46	679	0.07
51	26.02	32.90	4.91	0.53	634	20	26.05	32.31	5.08	0.46	678	0.14
62	19.35	34.49	1.88	1.86	338	30	26.02	32.51	5.04	0.50	662	0.20
71	16.25	34.85	1.52	2.08	240	50	26.02	32.89	4.92	0.53	635	0.33
80	14.87	35.01	1.28	2.10	199	75	15.17	34.99	1.35	2.09	207	0.44
89	14.66	34.96	1.36	2.11	198	100	14.09	34.97	1.25	2.27	186	0.49
97	14.15	34.97	1.27	2.25	187	150	13.71	34.96	0.95	2.34	179	0.58
161	13.66	34.96	0.91	2.36	178	200	12.90	34.90	0.60	2.53	168	0.67
206	12.76	34.90	0.56	2.55	165	250	11.84	34.87	0.35	2.69	150	0.75
298	10.92	34.81	0.24	2.77	139	300	10.89	34.81	0.24	2.78	138	0.83
350	9.78	34.70	0.21	2.85	128	400	8.93	34.69	0.20	2.97	116	0.96
425	8.66	34.68	0.20	3.01	112	500	7.85	34.63	0.27	3.13	104	1.08
501	7.84	34.63	0.28	3.14	104	600	6.84	34.56	0.57	3.28	96	1.19
599	6.86	34.56	0.57	3.28	96	700	6.00	34.52	0.74	3.32	88	1.29
748	5.70	34.52	0.79	3.33	84	800	5.41	34.52	1.03	3.31	82	1.40
888	4.96	34.54	1.35	3.27	74	1000	4.48	34.56	1.24	3.27	67	1.56
1082	4.16	34.60	1.12	3.27	62							

341

a) Mean value of 22.86 and 23.13°C.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-44

HORIZON; November 14, 1955; 0351 GCT; 4°03'N, 78°47'W; sounding, 2050 fm; wind, 235°, force 4; weather, cloudy; sea, moderate; wire angle, 33°.

0	26.10	32.18	4.40	0.46	688	0	26.10	32.18	4.40	0.46	688	0.00
15	26.14	32.42	4.87	0.34	672	10	26.12	32.36	4.71	0.38	676	0.07
30	26.14	32.34	5.01	0.34	678	20	26.14	32.39	4.92	0.34	674	0.14
37	26.13	32.33	4.96	0.42	678	30	26.14	32.34	5.01	0.34	678	0.20
41	26.10	32.37	4.91	0.42	675	50	17.50	34.78	1.63	1.92	273	0.30
44	26.03	32.44	4.91	0.42	667	75	14.54	34.96	0.92	2.28	196	0.36
48	21.05	34.11	2.71	1.34	408	100	14.07	34.96	0.88	2.32	186	0.41
75	14.54	34.96	0.92	2.28	196	150	13.27	34.91	0.71	2.41	174	0.50
113	13.85	34.96	0.84	2.33	182	200	12.53	34.86	0.44	2.53	164	0.59
151	13.26	34.91	0.71	2.41	174	250	11.33	34.78	0.26	2.70	147	0.67
209	12.44	34.85	0.41	2.55	163	300	10.10	34.71	0.30	2.92	133	0.74
247	11.42	34.79	0.25	2.69	149	400	8.70	34.64	0.27	3.13	116	0.87
294	10.20	34.72	0.30	2.91	133	500	7.70	34.60	0.25	3.19	104	0.99
356	9.17	34.65	0.29	3.05	122	600	6.90	34.56	0.51	3.37	97	1.10
419	8.50	34.63	0.26	3.16	113	700	6.16	34.53	0.76	3.42	89	1.20
501	7.69	34.60	0.25	3.19	104	800	5.59	34.54	0.94	3.40	82	1.29
621	6.75	34.55	0.56	3.40	95	1000						(1.47)
747	- r	- r	- r	-	-							
937	4.84	34.56	1.14	3.34	72							

H-45

HORIZON; November 14, 1955; 1554, 1617 GCT; 4°05'N, 77°45'W; sounding, 240 fm; wind, 025°, force 4; weather, thunderstorm; sea, slight; wire angle, 10°, 17°.

0	26.08	26.73	5.26	0.37	1081	0	26.08	26.73	5.26	0.37	1081	0.00
						10	26.10	27.85	5.20	0.35	1001	0.10
23	26.14	29.21	5.13	0.32	904	20	26.12	29.18	5.15	0.33	905	0.20
42	26.11	30.63	5.05	0.36	800	30	26.13	29.76	5.10	0.33	864	0.29
51	22.48a)	32.90	3.37	1.07	534	50	22.80	33.86	3.47	0.99	472	0.42
61	15.50	34.64	1.34	1.97	240	75	13.39	34.84	1.08	2.17	182	0.50
70	13.66	34.82	1.10	2.19	188	100	13.13	34.93	1.10	2.16	170	0.56
93	13.14	34.91	1.07	2.16	172	150	13.07	34.87	0.92	2.23	173	0.64
117	13.12	34.93	1.16	2.16	172	200	12.64	34.83	0.88	2.27	168	0.73
139	13.09	34.88	0.92	2.23	172	250	11.90	34.80	0.48	2.49	157	0.81
191	12.78	34.84	0.92	2.23	170	300	10.90	34.78	0.34	2.64	140	0.88
239	12.04	34.81	0.52	2.47	158							
287	11.28	34.80	0.40	2.58	145							
339	9.33	34.68	0.29	2.85	122							
388	8.80	34.61	0.28	2.91	120							

H-46

HORIZON; November 14, 1955; 0106 GCT; 5°00'N, 78°09'W; sounding, 2020 fm; wind, 135°, force 3; weather, cloudy; sea, slight; wire angle, 20°.

0	25.84	30.19	4.97	0.42	824	0	25.84	30.19	4.97	0.42	824	0.00
19	26.03	30.92	4.97	0.38	777	10	25.96	30.57	4.97	0.40	800	0.08
33	26.09	32.43	4.87	0.45	670	20	26.04	31.03	4.96	0.38	769	0.16
42	24.13	33.21	3.83	0.95	556	30	26.09	32.12	4.90	0.39	692	0.23
47	21.22	34.16	2.67	1.48	410	50	19.90	34.31	2.28	1.73	365	0.34
56	17.67b)	34.46	1.59	2.07	300	75	14.14	34.93	0.91	2.28	190	0.40
66	14.22	34.94	1.01	2.27	191	100	13.99	34.89	0.82	2.31	189	0.46
95	14.07	34.90	0.85	2.31	191	150	13.31	34.93	0.59	2.37	174	0.55
141	13.44	34.97	0.65	2.35	174	200	12.63	34.84	0.47	2.57	168	0.64
188	12.88	34.85	0.48	2.51	171	250	11.61	34.79	0.33	2.74	152	0.72
257	11.44	34.78	0.29	2.76	150	300	10.58	34.74	0.24	2.91	137	0.79
302	10.54	34.74	0.24	2.91	137	400	9.00	34.64	0.20	3.13	120	0.94
358	9.57	34.70	0.26	3.05	124	500	7.97	34.56	0.37	3.11	111	1.06
432	8.68	34.61	0.19	3.14	118	600	7.10	34.53	0.33	3.40	101	1.17
511	7.83	34.56	0.37	3.10	109	700	6.26	34.53	0.58	3.37	91	1.28
613	7.03	34.54	0.33	3.41	101	800	5.50	34.52	0.87	3.30	82	1.38
762	5.71	- r	0.78	3.30	-	1000						(1.53)
911	4.98	34.53	1.09	3.30	75							

a) Mean value of 22.26 and 22.69°C.

b) Alternate value, 17.55°C.

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; November 15, 1955; 1253, 1414 GCT; 5°49'N, 78°31'W; sounding, 2230 fm; wind, 160°, force 2; weather, moderate rain; sea, missing; wire angle, 08°, 12°.

H-47

0	25.92	27.94	4.96	0.34	989	0	25.92	27.94	4.96	0.34	989	0.00
10	26.20	28.55	5.09	0.31	953	10	26.20	28.55	5.09	0.31	953	0.10
25	26.10	32.97	4.90	0.55	632	20	26.18	31.49	5.00	0.49	740	0.18
34	25.13	33.29	4.34	0.80	580	30	26.00	33.06	4.82	0.61	622	0.25
44	21.36	34.25	2.71	1.20	406	50	19.00	34.55	1.99	1.60	326	0.34
64	16.00	34.70	1.32	2.06	245	75	14.42	34.85	0.98	2.26	201	0.41
85	14.12	34.90	0.90	2.30	192	100	13.90	34.92	0.83	2.33	186	0.46
158	13.16	34.90	0.64	2.45	173	150	13.27	34.91	0.69	2.43	174	0.55
268	11.35	34.74	0.41	2.76	152	200	12.54	34.84	0.52	2.57	166	0.64
316	10.12	34.67	0.32	2.86	136	250	11.69	34.76	0.43	2.71	156	0.72
371	9.29	34.61	0.27	3.05	127	300	10.49	34.69	0.35	2.83	140	0.80
						400	8.92	34.62	0.27	3.11	121	0.94
446	8.52	34.61	0.28	3.17	115	500	8.04	34.57	0.35	3.28	112	1.06
523	7.83	34.56	0.36	3.32	110	600	7.15	34.54	0.36	3.47	101	1.18
626	6.91	34.54	0.36	3.50	99	700	6.27	34.52	0.56	3.53	92	1.29
783	5.71	34.52	0.77	3.49	84	800	5.61	34.52	0.81	3.48	84	1.39
937	5.02	34.51	1.08	3.31	78	1000	4.69	34.51	0.98	3.30	74	1.57
1137	4.06	34.53	0.56	3.29	66							

HORIZON; November 16, 1955; 2321 GCT; 6°52'N, 78°54'W; sounding, 1855 fm; wind, 175°, force 3; weather, cloudy; sea, smooth; wire angle, 18°.

H-48

0	25.98	26.41	5.20	0.26	1102	0	25.98	26.41	5.20	0.26	1102	0.00
10	26.59	29.63	5.10	0.35	887	10	26.59	29.63	5.10	0.35	887	0.10
19	24.36	33.31	4.11	0.74	556	20	24.35	33.31	4.09	0.75	556	0.17
28	19.00	33.98	1.98	1.75	367	30	18.90	33.99	1.95	1.76	364	0.22
46	17.20	34.67	1.47	2.00	274	50	16.70	34.76	1.33	2.08	256	0.28
69	14.88	34.92	0.92	2.33	205	75	14.51	34.90	0.85	2.34	200	0.34
93	13.98	34.89	0.73	2.34	190	100	13.81	34.89	0.70	2.36	186	0.38
140	13.25	34.89	0.63	2.42	175	150	13.16	34.90	0.57	2.42	173	0.47
186	12.77	34.90	0.46	2.40	165	200	12.53	34.89	0.42	2.44	162	0.56
254	11.61	34.81	0.30	2.66	151	250	11.70	34.82	0.32	2.64	152	0.65
302	10.56	34.74	0.22	2.79	138	300	10.60	34.74	0.22	2.78	138	0.72
357	9.68	34.69	0.22	2.94	127	400	9.30	34.66	0.20	2.98	123	0.86
430	9.08	34.65	0.20	3.01	121	500	8.31	34.61	0.31	3.11	112	0.99
510	8.21	34.61	0.32	3.12	111	600	7.28	34.59	0.31	3.04	99	1.10
614	7.12	34.58	0.31	3.03	98	700	6.30	34.53	0.50	3.25	92	1.20
770	5.81	34.52	0.65	3.37	86	800	5.65	34.52	0.69	3.37	84	1.30
919	5.02	34.56	0.89	3.27	74	1000	4.60	34.56	1.08	3.26	69	1.48
1116	4.12	34.55	1.43	3.25	65							

HORIZON; November 16, 1955; 0808 GCT; 7°42'N, 79°20'W; sounding, 155 fm; wind, 165°, force 1; weather, clear; sea, smooth; wire angle, 05°.

H-49

0	26.00	26.38	5.11	0.47	1104	0	26.00	26.38	5.11	0.47	1104	0.00
11	25.94	26.94	5.41	0.37	1062	10	25.94	26.89	5.38	0.40	1066	0.11
25	26.29	29.09	5.28	0.36	917	20	26.21	28.32	5.31	0.32	970	0.21
34	26.11	31.40	4.71	0.58	745	30	26.22	30.26	4.79	0.53	830	0.30
40	23.22	32.90	3.53	1.16	564	50	14.30	34.90	0.81	2.32	195	0.40
45	22.93	33.21	3.32	1.23	524	75	13.38	34.88	0.62	2.48	179	0.45
48	16.89	34.75	1.31	2.08	261	100	13.08	34.90	0.55	2.55	171	0.49
73	13.40	34.88	0.62	2.47	179	150	11.68	34.78	0.38	2.80	154	0.57
98	13.09	34.90	0.55	2.55	171	200	11.37	34.79	0.33	2.81	148	0.65
153	11.61	34.78	0.37	2.80	153							
202	11.36	34.79	0.32	2.81	148							

HORIZON; November 19, 1955; 0233 GCT; 7°40'N, 79°23'W; sounding, 120 fm; wind, 260°, force 3; weather, intermittent slight drizzle; sea, moderate; wire angle, 53°.

H-50

0	26.47	28.46	4.70	0.30	968	0	26.47	28.46	4.70	0.30	968	0.00
5	26.28	28.68	5.15	0.28	946	10	26.50	28.77	4.96	0.36	946	0.10
8	26.49	28.17	4.97	0.34	989	20	26.30	31.90	4.74	0.64	714	0.18
15	26.54	30.30	4.81	0.45	838	30	22.78	32.96	3.21	1.17	538	0.24
23	22.86	32.86	3.30	1.20	547	50	16.72	34.44	1.69	1.83	281	0.32
33	22.71	32.99	3.19	1.15	533	75	14.51	34.81	0.91	2.33	206	0.39
44	19.60	33.86	2.68	1.37	390							
87	14.07	34.87	0.77	2.46	193							

343

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-51

HORIZON; November 19, 1955; 0944 GCT; 6°56'N, 79°54'W; sounding, 1710 fm; wind, 220°, force 4; weather, overcast; sea, rough; wire angle, 23°.

0	26.24	27.39	5.14	0.46	1038	0	26.24	27.39	5.14	0.46	1038	0.00
9	26.26	27.72	4.99	0.41	1015	10	26.25	28.12	4.99	0.42	986	0.10
18	26.19	31.31	4.97	0.55	754	20	26.22	31.46	4.98	0.57	744	0.19
27	26.24	31.98	5.02	0.61	707	30	26.21	32.42	5.01	0.63	674	0.26
45	18.40	34.61	1.77	2.03	307	50	16.61	34.78	1.32	2.22	253	0.35
68	15.81	34.84	1.18	2.27	232	75	15.41	34.88	0.85	2.30	220	0.41
91	14.68	34.92	0.42	2.34	202	100	14.48	34.92	0.51	2.35	197	0.46
137	13.86	34.93	0.84	2.40	184	150	13.75	34.92	0.82	2.41	183	0.56
181	13.47	34.89	0.74	2.42	179	200	13.08	34.88	0.62	2.45	173	0.66
246	11.49	34.82	0.32	2.79	148	250	11.40	34.81	0.31	2.86	147	0.74
291	10.79	34.76	0.25	3.35	140	300	10.61	34.74	0.21	3.33	138	0.81
343	9.86	34.69	0.12	3.10	130	400	9.03	34.63	0.21	3.22	122	0.95
414	8.92	34.63	0.22	3.24	119	500	8.13	34.61	0.22	3.32	110	1.07
491	8.18	34.62	0.21	3.37	110	600	7.36	34.56	0.28	3.25	103	1.19
591	7.44	34.56	0.26	3.24	104	700	6.56	34.56	0.45	3.40	92	1.30
744	6.21	34.56	0.56	3.42	88	800	5.72	34.54	0.74	3.39	84	1.39
893	4.97	34.51	1.04	3.34	77	1000	4.49	34.52	1.23	3.35	72	1.57
1092	4.24	34.52	1.33	3.36	69							

H-52

HORIZON; November 19, 1955; 2036, 2212 GCT; 5°43'N, 80°31'W; sounding, 1600 fm; wind, 215°, force 5; weather, intermittent slight drizzle; sea, rough; wire angle, 17°, 15°.

0	25.88	32.31	5.34	0.81	672	0	25.88	32.31	5.34	0.81	672	0.00
10	25.87	32.29	5.13	0.84	674	10	25.87	32.29	5.13	0.84	674	0.07
24	25.82	32.41	5.00	0.91	664	20	25.84	32.39	5.04	0.88	666	0.13
38	25.06	33.04	4.37	1.20	596	30	25.70	32.66	4.78	0.99	642	0.20
52	21.76	34.05	2.94	1.70	431	50	22.20	33.96	3.10	1.64	450	0.31
71	16.42	34.81	1.14	2.46	247	75	15.55	34.84	0.93	2.58	226	0.39
85	14.64	34.91	0.76	2.64	202	100	14.12	34.94	0.75	2.63	188	0.45
98	14.22	34.94	0.75	2.63	191	150	13.25	34.93	0.72	2.65	172	0.54
130	13.44	34.93	0.74	2.64	176	200	12.78	34.92	0.56	2.71	164	0.63
200	12.78	34.92	0.56	2.71	164	250	11.79	34.81	0.26	2.98	154	0.71
244	11.92	34.83	0.27	2.96	154	300	10.73	34.74	0.20	3.11	141	0.78
295	-	34.78	0.20	3.18	-	400	8.95	34.64	0.20	3.35	119	0.93
393	9.05	34.65	0.20	3.33	121	500	7.65	34.59	0.24	3.55	104	1.04
584	6.78	34.58	0.38	3.63	93	600	6.68	34.58	0.40	3.63	92	1.15
801	5.56	34.60	0.81	3.63	77	700	6.06	34.59	0.62	3.63	84	1.25
1003	4.71	34.53	1.12	3.64	73	800	5.57	34.60	0.80	3.63	77	1.33
1232	3.71	34.60	1.44	3.52	57	1000	4.75	34.53	1.11	3.64	73	1.51
1274	3.72	34.56	1.44	3.54	60							
1569	3.04	34.61	1.83	3.45	51							
2173	2.16	34.62	2.36	2.81	42							
2665	1.96	34.64	2.58	2.16	39							

H-53

HORIZON; November 20, 1955; 0805 GCT; 4°37'N, 81°02'W; sounding, 1365 fm; wind, 215°, force 5; weather, cloudy; sea, rough; wire angle, 07°.

0	25.59	32.83	5.11	-	626	0	25.59	32.83	5.11	-	626	0.00
20	25.62	32.90	5.02	-	622	10	25.61	32.87	5.06	-	624	0.06
41	-	33.08	4.85	-	-	20	25.62	32.90	5.02	-	622	0.12
51	23.80	33.64	4.08	-	517	30	25.43	33.06	4.97	-	605	0.19
59	18.24	34.69	1.98	-	297	50	23.95	33.60	4.16	-	524	0.30
85	14.57	34.96	0.79	-	196	75	14.93	34.93	0.86	-	206	0.39
104	14.30	34.97	0.98	-	190	100	14.35	34.97	0.96	-	192	0.44
156	13.58	34.91	1.15	2.33	180	150	13.67	34.91	1.16	-	182	0.54
208	12.82	34.92	0.75	2.56	165	200	12.96	34.92	0.81	2.50	167	0.63
264	12.07	34.83	0.43	2.74	157	250	12.24	34.85	0.47	2.65	160	0.71
313	11.04	34.76	0.26	2.82	145	300	11.30	34.78	0.30	2.76	147	0.79
369	9.91	34.68	0.19	3.06	131	400	9.37	34.68	0.25	3.16	123	0.93
444	8.62	34.67	0.27	3.33	112	500	8.00	34.62	0.22	3.36	107	1.06
525	7.84	34.61	0.21	3.40	106	600	7.19	34.56	0.31	3.38	100	1.17
629	6.93	34.54	0.39	3.40	98	700	6.37	34.53	0.56	3.34	93	1.28
787	5.66	34.52	0.80	3.30	84	800	5.55	34.52	0.83	3.26	83	1.38
943	4.88	34.51	1.06	3.24	76	1000	4.60	34.51	1.15	3.22	74	1.55
1149	4.00	34.54	1.35	3.25	65							

344

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; November 20, 1955; 1812 GCT; 4°08'N, 81°48'W; sounding, 1200 fm; wind, 195°, force 4; weather, cloudy; sea, slight; wire angle, 00°.

H-54

0	25.90	31.74	5.22	0.32	734	0	25.90	31.74	5.22	0.32	714	0.00
20	25.76	32.00	5.08	0.30	691	10	25.82	31.87	5.12	0.31	702	0.07
44	23.45	33.64	3.78	0.95	507	20	25.76	32.00	5.08	0.30	691	0.14
55	18.81	34.58	2.06	1.73	319	30	25.50	32.68	4.98	0.37	634	0.20
64	16.68	34.81	1.62	1.94	253	50	21.45	34.05	3.22	1.39	424	0.31
74	15.06	34.90	1.01	2.15	211	75	15.05	34.90	1.01	2.15	211	0.39
104	14.14	34.92	1.16	2.10	190	100	14.26	34.92	1.16	2.10	193	0.44
157	13.38	34.92	0.80	2.29	176	150	13.51	34.93	0.84	2.27	177	0.54
211	12.81	34.85	0.66	2.38	170	200	12.98	34.86	0.72	2.35	172	0.63
269	11.85	34.85	0.27	2.63	152	250	12.19	34.83	0.37	2.57	160	0.71
320	10.60	34.74	0.21	2.80	139	300	11.21	34.80	0.24	2.71	144	0.79
377	9.42	34.70	0.23	3.01	123	400	9.12	34.68	0.25	3.05	119	0.93
455	8.48	34.66	0.25	3.13	111	500	8.10	34.64	0.30	3.16	107	1.06
537	7.83	34.63	0.32	3.18	104	600	7.23	34.59	0.38	3.26	98	1.17
644	6.81	34.57	0.45	3.31	95	700	6.40	34.56	0.57	3.36	90	1.27
803	5.78	34.54	0.80	3.40	84	800	5.82	34.54	0.78	3.40	84	1.36
955	4.92	34.52	1.16	3.27	75	1000	4.71	34.52	1.20	3.28	73	1.54
1166	4.06	34.58	1.38	3.32	63							

HORIZON; November 21, 1955; 0620 GCT; 3°01'N, 82°15'W; sounding, 1050 fm; wind, 200°, force 3; weather, cloudy; sea, moderate; wire angle, 14°.

H-55

0	25.35	31.58	5.10	0.30	710	0	25.35	31.58	5.10	0.30	710	0.00
23	25.34	31.60	5.13	0.27	708	10	25.35	31.59	5.11	0.29	709	0.07
33	24.34	32.23	4.49	0.50	634	20	25.34	31.60	5.12	0.28	708	0.14
43	21.19	33.55	3.10	1.16	453	30	24.85	31.93	4.84	0.35	670	0.21
52	15.63	34.85	1.46	1.96	227	50	17.80	34.62	1.92	1.77	292	0.31
61	14.98	34.92	1.43	1.96	208	75	14.55	34.96	1.51	1.98	196	0.37
71	14.66	34.96	1.50	1.96	198	100	14.13	34.95	1.56	1.98	188	0.42
129	13.79	34.93	1.54	1.99	183	150	13.55	34.91	1.37	2.05	180	0.51
181	13.24	34.88	0.90	2.16	176	200	13.00	34.87	0.78	2.25	172	0.61
260	11.94	34.83	0.46	2.44	154	250	12.14	34.84	0.52	2.43	158	0.69
308	11.09	34.77	0.30	2.49	145	300	11.22	34.78	0.31	2.49	146	0.76
364	9.76	34.67	0.29	2.83	130	400	9.15	34.66	0.30	3.01	122	0.91
438	8.70	34.65	0.32	3.10	115	500	8.10	34.60	0.47		110	1.03
517	7.96	34.60	0.50	-	108	600	7.20	34.59	0.57		98	1.15
620	6.99	34.58	0.59	-	96	700	6.34	34.54	0.69		92	1.25
774	5.76	34.51	0.87	-	86	800	5.61	34.50	0.93		85	1.34
923	4.97	34.52	1.16	-	76	1000	4.65	34.54	1.26		72	1.52
1126	4.28	34.58	1.36	-	65							

HORIZON; November 21, 1955; 1518 GCT; 2°03'N, 82°45'W; sounding, 1840 fm; wind, 165°, force 4; weather, cloudy; sea, slight; wire angle, 09°.

H-56

0	24.90	32.06	5.13	0.36	662	0	24.90	32.06	5.13	0.36	662	0.00
19	24.72	32.74	5.12	0.39	607	10	24.82	32.38	5.12	0.38	636	0.06
39	24.36	33.12	5.03	0.46	570	20	24.70	32.76	5.12	0.41	606	0.13
44	21.10	34.00	3.26	1.26	418	30	24.54	32.96	5.09	0.42	587	0.19
49	14.97	34.92	1.61	2.00	208	50	14.95	34.92	1.60	2.02	207	0.27
58	14.80	34.96	1.57	2.01	201	75	14.36	34.98	1.42	2.06	191	0.32
99	13.75	34.95	1.44	2.08	180	100	13.74	34.95	1.45	2.08	181	0.36
148	13.52	34.96	1.89	2.02	175	150	13.51	34.96	1.88	2.05	175	0.45
197	13.13	34.91	1.41	2.16	171	200	13.12	34.91	1.40	2.17	172	0.54
268	12.59	34.88	0.81	2.39	164	250	12.77	34.89	1.00	2.37	166	0.63
317	10.56	34.78	0.35	2.77	135	300	11.30	34.80	0.42	2.71	146	0.71
373	9.32	34.72	0.34	2.93	119	400	8.97	34.66	0.34	3.08	118	0.84
451	8.48	34.58	0.35	3.20	117	500	8.11	34.57	0.39	3.22	113	0.98
533	7.84	34.56	0.42	3.18	109	600	7.34	34.55	0.56	3.22	103	1.10
640	7.02	34.54	0.69	3.20	100	700	6.52	34.55	0.82	3.24	93	1.19
797	5.52	34.55	1.12	3.25	80	800	5.49	34.55	1.13	3.27	79	1.29
946	4.91	34.52	1.43	3.19	75	1000	4.69	34.51	1.47	3.22	74	1.47
1147	4.11	34.51	1.49	3.26	68							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m	

H-57

HORIZON; November 21, 1955; 2338 GCT; 0°57'N, 82°57'W; sounding, 1840 fm; wind, 190°, force 4; weather, cloudy; sea, slight; wire angle, 05°.

0	24.80	33.24	5.09	0.51	574	0	24.80	33.24	5.09	0.51	574	0.00
44	24.01	33.28	5.05	0.48	548	10	24.72	33.24	5.08	0.51	571	0.06
54	14.10	34.85	1.44	1.97	195	20	24.60	33.25	5.07	0.50	568	0.11
64	13.85	34.90	1.21	2.08	186	30	24.36	33.26	5.06	0.49	560	0.17
73	13.63	34.92	1.50	2.00	180	50	17.30	34.54	3.25	1.22	286	0.26
103	13.28	34.90	1.70	1.94	175	75	13.60	34.91	1.52	1.98	180	0.31
127	13.23	34.91	1.66	1.94	174	100	13.32	34.89	1.69	1.95	176	0.36
158	13.22	34.92	1.80	2.07	173	150	13.23	34.91	1.76	2.00	172	0.44
212	12.88	34.96	1.51	2.11	163	200	13.01	34.96	1.99	2.10	165	0.53
271	11.86	34.80	0.44	2.55	156	250	12.42	34.88	0.89	2.37	160	0.62
321	10.28	34.76	0.25	2.74	132	300	10.80	34.77	0.26	2.67	140	0.69
378	9.56	34.74	0.30	2.87	121	400	9.25	34.70	0.31	2.92	120	0.83
457	8.31	34.61	0.42	3.00	112	500	7.96	34.61	0.52	3.00	107	0.96
540	7.77	34.61	0.58	3.00	104	600	7.37	34.57	0.68	3.04	102	1.07
646	7.07	34.54	0.77	3.08	100	700	6.58	34.52	0.94	3.12	95	1.18
804	5.44	34.49	1.34	3.15	84	800	5.50	34.49	1.32	3.15	84	1.28
957	4.78	34.51	1.52	3.05	75	1000	4.62	34.51	1.54	3.06	73	1.46
1166	3.99	34.52	1.70	3.21	66							

H-58

HORIZON; November 22, 1955; 0746 GCT; 0°03'N, 83°29'W; sounding, 1670 fm; wind, 170°, force 4; weather, intermittent slight drizzle; sea, moderate; wire angle, 00°.

0	23.74	33.60	5.01	0.48	518	0	23.74	33.60	5.01	0.48	518	0.00
25	23.79	33.62	5.00	0.44	518	10	23.77	33.60	5.01	0.46	519	0.05
30	23.76	33.68	4.99	0.44	512	20	23.79	33.61	5.00	0.44	518	0.10
36	23.61	33.64	4.84	0.48	511	30	23.76	33.68	4.99	0.44	512	0.16
50	13.54	34.86	1.44	2.00	183	50	13.54	34.86	1.44	2.00	183	0.22
75	13.34	34.85	1.84	1.94	180	75	13.34	34.85	1.84	1.94	180	0.27
98	13.24	34.85	1.99	1.92	178	100	13.23	34.85	2.00	1.92	178	0.32
149	12.81	34.87	2.12	1.88	169	150	12.80	34.86	2.11	1.88	169	0.41
198	12.58	34.83	1.49	2.10	167	200	12.57	34.83	1.45	2.12	167	0.49
272	12.03	34.80	0.82	2.36	159	250	12.23	34.81	1.00	2.30	162	0.58
320	10.12	34.65	0.25	2.71	137	300	11.06	34.71	0.25	2.53	148	0.66
379	9.43	34.64	0.39	2.82	127	400	9.19	34.64	0.43	2.84	123	0.79
458	8.52	34.63	0.53	2.94	114	500	8.08	34.60	0.57	2.97	109	0.92
541	7.60	34.58	0.62	3.00	104	600	7.28	34.56	0.68	3.02	102	1.04
648	6.98	34.54	0.77	3.01	99	700	6.53	34.49	0.90	3.03	96	1.14
808	5.56	34.42	1.23	3.08	90	800	5.60	34.42	1.21	3.08	91	1.24
960	4.74	34.43	1.49	3.04	80	1000	4.62	34.43	1.52	3.04	79	1.45
1159	3.92	34.47	1.68	3.04	69							

H-59

HORIZON; November 22, 1955; 1844 GCT; 1°02'S, 84°05'W; sounding, 910 fm; wind, 180°, force 5; weather, overcast; sea, moderate; wire angle, 07°.

0	21.49	33.87	5.35	0.52	438	0	21.49	33.87	5.35	0.52	438	0.00
20	21.45	33.86	5.53	0.50	437	10	21.48	33.86	5.44	0.51	438	0.04
30	20.17	33.96	5.19	0.71	397	20	21.45	33.86	5.53	0.50	437	0.09
40	14.95	34.85	2.06	1.74	212	30	20.17	33.96	5.19	0.71	397	0.13
51	13.95	34.91	1.77	1.84	188	50	13.96	34.91	1.78	1.83	188	0.19
60	13.86	34.92	1.61	1.94	185	75	13.70	34.96	1.62	1.95	179	0.23
70	13.76	34.97	1.59	1.96	179	100	13.52	34.94	1.96	1.89	177	0.28
123	13.42	34.92	2.12	1.83	177	150	13.37	34.89	2.15	1.80	177	0.37
173	13.30	34.88	2.18	1.78	177	200	13.15	34.88	0.95	2.15	174	0.45
271	12.57	34.85	0.40	2.42	165	250	12.78	34.86	0.53	2.38	168	0.55
319	11.76	34.80	0.30	2.55	154	300	12.16	34.83	0.34	2.51	159	0.63
378	9.72	34.70	0.35	2.69	127	400	9.41	34.70	0.35	2.77	122	0.77
454	9.06	34.69	0.35	2.84	118	500	8.49	34.67	0.56	2.87	111	0.90
536	8.02	34.65	0.73	2.90	105	600	7.39	34.65	0.79	3.00	96	1.01
641	6.99	34.63	0.82	3.04	92	700	6.47	34.60	0.97	3.09	88	1.11
800	5.50	34.57	1.34	3.12	78	800	5.50	34.57	1.34	3.12	78	1.21
953	4.79	34.60	1.56	3.02	68	1000	4.58	34.60	1.60	3.02	66	1.37
1156	3.83	34.58	1.78	3.04	60							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; November 29, 1955; 0135 GCT; 2°00'S, 90°32'W; sounding, 1750 fm; wind, 195°, force 4;
 weather, cloudy; sea, slight; wire angle, 17°.

H-60

0	19.68	34.51	4.79	0.98	345	0	19.68	34.51	4.79	0.98	345	0.00
18	18.22	34.52	4.30	0.94	310	10	19.20	34.51	4.69	0.96	333	0.03
23	16.43	34.67	3.36	1.26	257	20	18.00	34.53	4.20	0.96	303	0.07
28	15.00	34.92	2.58	1.36	208	30	14.80	34.90	2.46	1.39	205	0.09
37	14.40	34.92	2.37	1.58	196	50	14.13	34.95	2.36	1.82	188	0.13
56	14.05	34.97	2.36	1.83	185	75	13.73	34.97	2.25	1.82	178	0.18
94	13.37	34.96	2.06	1.75	172	100	13.29	34.96	2.08	1.70	171	0.22
140	13.14	34.94	2.14	1.59	170	150	13.13	34.94	2.13	1.60	169	0.30
187	12.98	34.91	1.91	1.69	168	200	12.88	34.90	1.08	1.80	167	0.39
254	12.25	34.85	0.50	2.26	160	250	12.31	34.85	0.52	2.25	161	0.47
300	10.76	34.78	0.25	2.35	139	300	10.76	34.78	0.25	2.35	138	0.56
354	9.66	34.74	0.53	2.69	123	400	9.14	34.70	0.98	2.49	118	0.69
428	8.86	34.67	1.11	2.44	115	500	8.10	34.57	1.18	2.48	112	0.82
505	8.02	34.56	1.19	2.50	112	600	7.11	34.52	1.24	2.80	102	0.93
607	7.02	34.52	1.25	2.81	101	700	6.31	34.52	1.26	2.77	92	1.03
763	5.88	34.51	1.26	2.73	87	800	5.69	34.51	1.27	2.77	85	1.13
910	5.26	34.52	1.37	2.86	79	1000	4.86	34.53	1.53	2.85	74	1.31
1106	4.41	34.55	1.81	2.80	68							

HORIZON; November 29, 1955; 1508, 1537 GCT; 2°56'S, 91°32'W; sounding, 1840 fm; wind, 180°, force 2;
 weather, cloudy; sea, smooth; wire angle, 26°, 32°.

H-61

0	20.14	34.85	5.20	1.08	332	0	20.14	34.85	5.20	1.08	332	0.00
5	19.96	34.90	5.13	1.01	323	10	19.85	34.90	5.12	0.98	321	0.03
17	18.89	34.74	4.75	0.92	310	20	18.12	34.80	4.30	0.91	286	0.06
30	16.86	34.90	3.54	1.24	250	30	16.86	34.90	3.54	1.24	250	0.09
43	14.94	34.88	2.66	1.71	210	50	14.35	34.92	2.38	1.72	195	0.13
65	13.90	34.90	2.23	1.66	187	75	13.80	34.94	2.23	1.59	182	0.18
90	13.69	34.96	2.25	1.54	178	100	13.63	34.96	2.24	1.52	178	0.23
131	13.42	34.92	2.14	1.50	176	150	13.28	34.90	2.16	1.51	176	0.31
179	13.04	34.88	2.19	1.66	172	200	12.87	34.88	0.40	1.85	169	0.40
229	12.60	34.87	0.25	2.34	164	250	12.45	34.85	0.27	2.40	163	0.48
270	12.28	34.83	0.28	2.45	162	300	11.79	34.80	0.26	2.55	155	0.57
320	11.06	34.75	0.24	2.60	145	400	9.57	34.64	0.22	2.72	129	0.72
						500	8.17	34.58	0.33	2.83	113	0.86
381	9.90	34.65	0.23	2.70	133	600	7.22	34.53	0.51	2.95	103	0.96
444	8.76	34.62	0.25	2.76	118	700	6.24	34.50	1.00	2.95	93	1.07
533	7.91	- r	- r	- r	-	800	5.66	34.49	1.52	2.73	86	1.17
667	6.45	34.52	0.84	2.97	93	1000	4.61	34.50	1.62	3.04	73	1.35
829	5.52	34.49	1.57	2.74	84							
1034	4.46	34.51	1.63	3.12	71							

HORIZON; November 30, 1955; 0237 GCT; 3°59'S, 92°27'W; sounding, 2110 fm; wind, 155°, force 2;
 weather, cloudy; sea, smooth; wire angle, 17°.

H-62

0	20.64	34.88	5.32	0.96	342	0	20.64	34.88	5.32	0.96	342	0.00
19	20.17	34.93	5.28	0.94	326	10	20.41	34.92	5.30	0.95	334	0.03
37	19.69	34.86	5.23	1.03	320	20	20.16	34.93	5.28	0.95	326	0.07
47	19.56	34.86	5.13	1.09	316	30	19.91	34.88	5.28	0.96	323	0.10
56	19.18	34.87	4.93	1.07	306	50	19.47	34.86	5.05	1.08	314	0.16
74	15.96	34.88	2.90	1.60	231	75	15.93	34.88	2.89	1.60	231	0.23
93	14.46	34.94	2.48	1.59	195	100	14.08	34.96	2.31	1.60	186	0.28
139	13.20	34.95	1.82	1.82	170	150	13.12	34.94	1.76	2.05	169	0.37
187	12.89	34.92	0.66	2.27	166	200	12.80	34.92	0.58	2.28	165	0.45
255	12.18	34.90	0.32	2.31	154	250	12.25	34.90	0.34	2.30	156	0.55
301	11.54	34.83	0.37	2.43	148	300	11.56	34.83	0.37	2.42	148	0.62
355	10.47	34.74	0.13	2.67	136	400	9.21	34.63	0.27	2.80	124	0.76
429	8.63	34.61	0.26	2.83	117	500	7.61	34.61	0.40	2.91	102	0.89
508	7.50	34.60	0.55	2.92	101	600	6.76	34.52	0.69	3.08	97	0.99
612	6.67	34.51	0.70	3.09	97	700	6.07	34.50	0.77	2.98	91	1.09
770	5.57	34.51	1.11	2.92	84	800	5.40	34.52	1.26	2.93	82	1.19
921	4.92	34.54	1.47	2.91	74	1000	4.61	34.54	1.59	2.89	71	1.36
1119	4.16	34.54	1.73	2.79	66							

347

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm/g		m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm/g	dyn m

H-63

HORIZON; November 30, 1955; 1217 GCT; 5°00'S, 93°19'W; sounding, 2140 fm; wind, 170°, force 3; weather, cloudy; sea, slight; wire angle, 08°.

0	20.77	34.88	5.34	1.00	345	0	20.77	34.88	5.34	1.00	345	0.00
24	20.78	35.17	5.20	1.06	325	10	20.77	35.00	5.28	1.02	337	0.03
49	20.31	35.23	5.09	1.19	309	20	20.78	35.13	5.22	1.05	328	0.07
59	17.36	35.10	2.22	1.82	246	30	20.73	35.18	5.16	1.09	322	0.10
68	15.36	35.01	1.40	1.97	209	50	20.27	35.23	5.06	1.20	307	0.16
83	14.19	34.99	0.76	1.97	186	75	14.73	35.00	0.98	1.97	196	0.23
102	13.22	34.94	0.63	2.18	171	100	13.29	34.94	0.63	2.18	172	0.27
151	12.61	34.90	0.61	2.19	163	150	12.62	34.90	0.61	2.18	163	0.36
205	12.31	34.88	0.55	2.24	158	200	12.35	34.88	0.56	2.23	158	0.44
267	11.86	34.83	0.46	2.34	154	250	12.02	34.84	0.47	2.32	156	0.51
314	11.34	34.82	0.52	2.09	145	300	11.52	34.83	0.49	2.15	147	0.60
372	10.37	34.73	0.16	2.66	135	400	9.86	34.70	0.15	2.82	128	0.74
447	8.88	34.67	0.14	2.96	116	500	7.99	34.61	0.19	2.97	107	0.87
527	7.63	34.58	0.24	2.97	104	600	6.73	34.52	0.50	3.02	97	0.98
630	6.41	34.51	0.65	3.02	94	700	5.93	34.51	1.03	2.98	88	1.08
789	5.44	34.51	1.38	2.90	82	800	5.40	34.51	1.39	2.90	82	1.19
943	4.76	34.53	1.42	3.03	73	1000	4.51	34.53	1.48	3.01	71	1.35
1145	3.91	34.51	1.72	2.81	66							

H-64

HORIZON; November 30, 1955; 2220 GCT; 6°00'S, 94°13'W; sounding, 2050 fm; wind, 145°, force 3; weather, cloudy; sea, smooth; wire angle, 17°.

0	21.33	34.97	5.38	1.10	354	0	21.33	34.97	5.38	1.10	354	0.00
19	20.95	34.94	5.43	1.01	346	10	20.96	34.94	5.42	1.01	346	0.04
38	20.68	35.02	5.16	1.02	333	20	20.94	34.94	5.42	1.01	345	0.07
47	20.25	35.02	5.21	1.07	322	30	20.70	35.02	5.17	1.02	334	0.10
66	18.24	35.14	3.41	1.50	264	50	20.21	35.02	5.20	1.08	321	0.17
80	14.87	34.98	1.08	2.08	200	75	15.40	35.01	1.43	2.00	210	0.24
95	13.50	34.87	0.80	2.18	182	100	13.33	34.86	0.85	2.18	179	0.28
143	12.69	34.85	0.74	2.20	168	150	12.63	34.85	0.72	2.21	166	0.37
190	12.33	34.89	0.55	2.31	158	200	12.27	34.89	0.53	2.33	156	0.45
260	11.78	34.87	0.40	2.46	150	250	11.90	34.88	0.43	2.44	151	0.54
306	11.27	34.79	0.28	2.53	147	300	11.34	34.79	0.30	2.52	147	0.61
364	10.48	34.78	-	-	133	400	9.98	34.74	0.22	2.68	128	0.75
438	9.39	34.69	0.23	2.75	122	500	8.31	34.61	0.23	2.84	112	0.89
520	7.94	34.56	0.24	2.88	111	600	7.10	34.52	0.30	3.05	103	1.00
626	6.87	34.51	0.34	3.07	100	700	6.31	34.49	0.71	3.04	94	1.11
777	5.74	34.47	1.33	2.91	89	800	5.60	34.47	1.38	2.87	87	1.21
926	4.82	34.50	1.46	2.61	76	1000	4.54	34.51	1.53	2.68	73	1.39
1124	3.98	34.52	1.89	2.93	66							

H-65

HORIZON; December 1, 1955; 0827 GCT; 7°00'S, 95°08'W; sounding, 2105 fm; wind, 155°, force 3; weather, overcast; sea, slight; wire angle, 06°.

0	20.89	34.81	5.32	0.87	354	0	20.89	34.81	5.32	0.87	354	0.00
34	20.87	35.01	5.33	0.86	339	10	20.89	34.87	5.32	0.86	350	0.04
68	20.40	35.17	5.24	1.08	315	20	20.88	34.93	5.33	0.86	345	0.07
78	19.43	35.11	4.27	1.34	295	30	20.88	34.99	5.33	0.86	341	0.10
89	16.19	35.01	1.82	1.89	227	50	20.41	35.17	5.25	1.07	316	0.17
103	14.22	34.91	0.25	2.33	192	75	20.10	35.16	4.99	1.18	308	0.25
128	13.08	34.88	0.21	2.44	173	100	14.37	34.94	0.30	2.30	194	0.31
158	12.36	34.86	0.55	2.31	161	150	12.48	34.86	0.49	2.32	162	0.40
211	11.71	34.85	0.58	2.33	150	200	11.82	34.85	0.59	2.32	152	0.48
267	11.14	34.83	0.66	2.31	141	250	11.36	34.84	0.63	2.32	144	0.56
316	10.54	34.78	0.21	2.58	135	300	10.76	34.79	0.30	2.49	137	0.63
374	9.86	34.72	0.13	2.73	128	400	9.58	34.69	0.13	2.77	125	0.76
451	8.90	34.67	0.22	2.84	116	500	8.22	34.64	0.23	2.89	108	0.89
532	7.80	34.60	0.19	2.93	105	600	7.03	34.54	0.32	2.99	99	1.00
636	6.74	34.53	0.41	2.99	97	700	6.27	34.50	0.73	2.95	93	1.11
793	5.64	34.47	1.12	2.87	88	800	5.61	34.47	1.14	2.88	87	1.21
944	4.88	34.51	1.49	3.04	75	1000	4.61	34.53	1.62	3.10	72	1.39
1142	3.90	34.54	1.85	3.17	63							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; December 1, 1955; 1821, 1936 GCT; 7°53'S, 96°00'W; sounding, 2100 fm; wind, 095°, force 3; weather, overcast; sea, slight; wire angle, 18°, 30°.

H-66

0	20.96	35.11	5.43	1.07	334	0	20.96	35.11	5.43	1.07	334	0.00
9	20.96	35.08	5.41	0.98	336	10	20.96	35.08	5.41	0.97	336	0.03
23	20.93	35.05	5.35	0.93	337	20	20.94	35.06	5.36	0.94	337	0.07
47	20.72	35.21	5.25	1.04	320	30	20.89	35.05	5.34	0.95	336	0.10
66	18.18	35.05	3.18	1.64	260	50	20.54	35.20	5.12	1.08	317	0.17
84	14.22	34.99	0.21	2.53	187	75	15.90	35.01	1.31	2.19	221	0.23
92	13.86	34.96	0.21	2.42	182	100	13.48	34.92	0.16	2.42	177	0.28
138	12.52	34.88	0.52	2.46	162	150	12.37	34.86	0.54	2.46	161	0.37
212	11.69	34.85	0.60	2.52	149	200	11.89	34.85	0.57	2.49	153	0.45
252	11.30	34.84	0.63	2.58	142	250	11.33	34.84	0.64	2.57	144	0.53
297	10.87	34.78	0.30	2.65	140	300	10.83	34.78	0.31	2.65	139	0.60
329	10.55	34.78	0.32	2.65	134	400	9.59	34.70	0.17	2.74	124	0.74
419	9.30	34.65	0.19	2.78	124	500	8.01	34.61	0.23	3.01	107	0.87
508	7.89	34.60	0.24	3.03	106	600	7.00	34.56	0.39	3.09	97	0.97
598	7.02	34.56	0.38	3.09	98	700	6.32	34.52	0.64	3.09	92	1.07
791	5.62	34.49	1.08	3.05	86	800	5.56	34.49	1.12	3.04	85	1.17
885	5.10	34.48	1.41	2.96	81	1000	4.65	34.49	1.68	3.00	75	1.35
989	4.68	34.49	1.66	3.00	76	1200	3.70	34.51	2.09	2.89	64	1.51
						1500	3.03	34.52	2.27	2.75	56	1.72
1067	4.18	34.49	1.91	2.93	70	2000	2.29	34.54	2.62	2.76	49	2.04
1183	3.76	34.51	2.08	2.90	64	2500	1.99	34.56	2.65	2.74	46	2.33
1521	2.96	34.52	2.30	2.74	56	3000	1.69	34.58	2.67	2.70	42	2.60
2002	2.29	34.54	2.63	2.76	49							
3001	1.69	34.58	2.67	2.70	42							

HORIZON; December 2, 1955; 1120, 1203 GCT; 7°00'S, 96°33'W; sounding, 2190 fm; wind, 115°, force 4; weather, overcast; sea, slight; wire angle, 00°, 02°.

H-67

0	20.68	34.58	5.45	1.03	365	0	20.68	34.58	5.45	1.03	365	0.00
35	21.12	35.01	5.37	0.89	345	10	20.69	34.70	5.45	1.02	356	0.04
59	20.87	35.03	5.21	1.21	337	20	20.70	34.82	5.45	1.02	348	0.07
69	19.90	35.15	4.29	1.48	304	30	21.06	34.94	5.42	0.90	349	0.11
83	15.86	35.00	1.54	2.38	221	50	21.02	35.02	5.30	1.12	342	0.18
112	13.59	34.88	0.25	2.44	183	75	18.65	35.14	3.42	1.53	274	0.25
153	12.24	34.85	0.51	2.31	159	100	14.01	34.98	0.24	2.48	184	0.31
207	11.48	34.85	0.59	2.84	145	150	12.30	34.85	0.51	2.30	160	0.40
269	10.83	34.83	0.49	2.55	135	200	11.56	34.85	0.58	2.83	146	0.47
318	10.31	34.75	0.36	2.65	133	250	11.07	34.84	0.55	2.65	139	0.55
377	9.52	34.70	0.21	2.75	124	300	10.51	34.78	0.41	2.61	133	0.62
454	8.45	34.66	0.35	2.81	111	400	9.20	34.66	0.26	2.77	122	0.75
						500	7.87	34.58	0.23	2.90	108	0.88
537	7.34	34.51	0.23	3.00	106	600	6.67	34.54	0.55	3.07	94	0.98
643	6.35	34.56	0.71	3.08	89	700	5.92	34.56	0.74	3.03	84	1.08
802	5.30	34.54	1.02	2.97	78	800	5.31	34.54	1.01	2.98	78	1.17
960	4.58	34.50	1.68	2.99	73	1000	4.41	34.50	1.78	2.98	72	1.34
1164	3.78	34.54	1.99	2.88	63							

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-68

HORIZON; December 2, 1955; 1928 GCT; 6°02'S, 97°10'W; sounding, 2130 fm; wind, 135°, force 3; weather, overcast; sea, slight; wire angle, 05°.

0	21.23	34.72	5.29	0.93	368	0	21.23	34.72	5.29	0.93	368	0.00
20	21.27	34.95	5.39	0.92	353	10	21.18	34.84	5.33	0.92	359	0.04
68	20.99	35.02	5.31	1.04	341	20	21.27	34.95	5.39	0.92	353	0.07
79	20.20	35.12	4.67	1.12	313	30	21.31	34.97	5.42	0.93	353	0.11
88	17.46	35.14	2.84	1.63	246	50	21.17	35.00	5.40	1.00	347	0.18
98	16.35	35.11	2.18	1.86	223	75	20.74	35.08	5.12	1.10	331	0.26
125	13.42	34.92	0.17	2.60	176	100	16.05	35.05	1.76	2.08	222	0.33
149	12.77	34.91	0.17	2.46	165	150	12.72	34.91	0.18	2.43	164	0.43
196	11.93	34.86	0.51	2.32	153	200	11.88	34.86	0.49	2.32	152	0.52
270	11.05	34.83	0.33	2.55	140	250	11.26	34.84	0.34	2.48	142	0.59
319	10.29	34.76	0.29	2.62	132	300	10.60	34.80	0.33	2.60	134	0.66
379	9.36	34.67	0.26	2.78	123	400	9.00	34.66	0.35	2.75	119	0.79
457	8.26	34.61	0.51	2.71	112	500	7.64	34.59	0.30	2.98	104	0.92
539	7.16	34.56	0.27	3.22	100	600	6.50	34.54	0.62	3.24	93	1.02
644	6.03	34.52	0.70	3.16	88	700	5.71	34.51	0.76	2.92	86	1.12
804	5.12	34.51	1.01	2.82	78	800	5.15	34.51	0.99	2.81	79	1.21
957	4.60	34.49	1.46	2.97	74	1000	4.47	34.49	1.54	2.99	73	1.38
1161	3.96	34.56	1.82	3.02	63							

H-69

HORIZON; December 3, 1955; 0258, 0354 GCT; 5°00'S, 97°30'W; sounding, 2030 fm; wind, 140°, force 4; weather, overcast; sea, slight; wire angle, 25°, 29°.

0	21.20	34.78	5.30	0.87	363	0	21.20	34.78	5.30	0.87	363	0.00
32	21.12	35.15	5.35	0.95	335	10	21.18	34.90	5.32	0.90	354	0.04
63	20.64	35.12	4.99	0.79	324	20	21.16	35.01	5.34	0.93	346	0.07
72	20.11	35.14	4.57	1.07	310	30	21.13	35.13	5.35	0.95	337	0.10
81	17.20	35.04	2.71	1.56	247	50	21.04	35.15	5.31	0.94	333	0.17
94	14.92	34.99	0.93	2.42	201	75	18.50	35.07	3.57	1.35	275	0.25
103	13.79	34.96	0.73	2.13	181	100	13.95	34.97	0.70	2.14	183	0.31
140	12.79	34.94	0.88	2.20	163	150	12.70	34.93	0.81	2.22	162	0.39
188	12.40	34.88	0.65	2.26	160	200	12.28	34.87	0.56	2.29	158	0.47
245	11.86	34.85	0.35	2.38	152	250	11.80	34.84	0.36	2.38	152	0.56
290	11.17	34.78	0.38	2.43	145	300	11.02	34.78	0.36	2.45	142	0.63
342	10.43	34.78	0.23	2.57	133	400	9.61	34.69	0.29	2.72	126	0.77
412	9.46	34.69	0.32	3.37	124	500	7.97	34.60	0.46	2.75	108	0.90
488	8.10	34.61	0.54	3.36	109	600	7.05	34.56	0.28	2.91	98	1.01
						700	6.29	34.55	0.48	2.95	89	1.11
592	7.11	34.56	0.25	2.96	99	800	5.61	34.55	0.75	2.93	82	1.21
745	5.96	- r	- r	- r	-	1000	4.56	34.54	1.33	2.88	70	1.38
897	5.10	- r	- r	- r	-							
1100	4.10	34.54	1.68	2.86	66							

H-70

HORIZON; December 3, 1955; 1220 GCT; 4°01'S, 98°03'W; sounding, 1970 fm; wind, 160°, force 4; weather, cloudy; sea, moderate; wire angle, 27°.

0	20.27	34.39	5.32	0.97	368	0	20.27	34.39	5.32	0.97	368	0.00
13	20.28	34.43	5.36	0.96	365	10	20.28	34.42	5.35	0.96	366	0.04
31	19.72	34.43	5.23	0.97	352	20	20.28	34.43	5.36	0.96	365	0.07
40	19.14	34.43	5.03	1.16	338	30	19.79	34.43	5.24	0.96	353	0.11
49	18.15	34.92	4.05	1.25	278	50	16.10	35.08	2.86	1.75	220	0.17
66	14.86	35.02	1.80	1.97	198	75	14.30	35.02	1.72	2.02	186	0.22
88	13.88	35.01	1.61	2.07	179	100	13.69	34.98	0.98	2.15	176	0.26
132	13.20	34.92	0.39	2.49	172	150	13.02	34.90	0.37	2.47	171	0.35
176	12.88	34.88	0.33	2.47	170	200	12.74	34.89	0.31	2.50	165	0.43
240	12.43	34.88	0.23	2.54	160	250	12.31	34.87	0.22	2.56	159	0.51
283	11.80	34.82	0.24	2.61	153	300	11.55	34.81	0.23	2.63	149	0.60
334	11.08	34.81	0.21	2.68	142	400	9.72	34.70	0.28	2.83	127	0.74
405	9.64	34.69	0.29	2.84	126	500	8.26	34.62	0.65	2.91	111	0.87
478	8.50	34.63	0.56	2.88	114	600	7.02	34.49	1.05	3.05	104	0.99
573	7.26	34.49	0.99	3.03	106	700	6.19	34.50	1.28	3.09	92	1.09
717	6.09	34.51	1.31	3.09	90	800	5.56	34.53	1.29	3.10	82	1.19
863	5.26	34.54	1.30	3.10	78	1000	4.57	34.52	1.69	3.07	72	1.37
1052	4.33	34.52	1.88	3.05	69							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; December 3, 1955; 2028 GCT; 3°00'S, 98°37'W; sounding, 2020 fm; wind, 130°, force 3; weather, partly cloudy; sea, slight; wire angle, 12°.

H-71

0	20.06	34.51	5.07	1.18	354	0	20.06	34.51	5.07	1.18	355	0.00
19	18.24	34.70	4.56	1.35	296	10	19.61	34.53	5.07	1.24	341	0.03
29	17.40	34.73	4.23	1.39	274	20	18.20	34.70	4.52	1.36	295	0.07
39	15.00	34.94	2.80	1.81	207	30	17.25	34.74	4.15	1.41	271	0.09
49	14.22	34.99	1.95	2.02	188	50	14.11	34.99	1.95	2.03	185	0.14
63	13.54	34.99	1.95	2.02	173	75	13.42	34.95	1.95	2.00	174	0.19
97	13.25	34.92	1.95	1.99	173	100	13.23	34.92	1.93	1.99	173	0.23
151	12.96	34.92	1.65	2.08	167	150	12.97	34.92	1.67	2.07	167	0.31
206a)	12.57	34.91	1.27	2.20	161	200	12.61	34.91	1.33	2.19	162	0.40

HORIZON; December 4, 1955; 0522, 0707 GCT; 1°59'S, 99°01'W; sounding, 1875 fm; wind, 140°, force 3; weather, overcast; sea, slight; wire angle, 25°, 30°.

H-72

0	19.48	34.78	5.14	1.17	320	0	19.48	34.78	5.14	1.17	320	0.00
8	19.08	34.80	5.02	1.17	309	10	18.99	34.80	5.01	1.18	307	0.03
						20	17.90	34.70	4.46	1.33	289	0.06
144	12.84	34.92	1.80	1.90	165	30	17.29	34.72	4.16	1.41	272	0.09
177	12.06	34.89	1.21	2.17	154	50	14.81	34.95	2.45	1.67	202	0.14
205	11.89	34.85	0.85	2.26	153	75	12.85	34.92	1.81	1.89	266	0.20
246	11.62	34.85	0.57	2.35	148	100	12.52	34.90	1.69	1.96	261	0.26
274	11.49	34.85	0.43	2.46	145	150	12.29	34.89	1.54	2.04	157	0.37
307	11.12	34.83	0.44	2.54	141	200	11.93	34.86	0.93	2.24	153	0.44
354	10.72	34.79	0.54	2.53	137	250	11.61	34.85	0.54	2.35	148	0.52
410b)	9.82	34.73	0.87	2.52	126	300	11.23	34.84	0.41	2.53	142	0.60
						400	9.98	34.73	0.81	2.52	129	0.74

HORIZON; December 4, 1955; 1446, 1524 GCT; 0°58'S, 99°28'W; sounding, 1800 fm; wind, 180°, force 3; weather, clear; sea, slight; wire angle, 12°, 12°.

H-73

0	19.19	34.61	4.96	1.11	325	0	19.19	34.61	4.96	1.11	325	0.00
9	19.11	34.69	5.05	1.07	318	10	19.07	34.69	5.04	1.07	317	0.03
19	17.70	34.70	4.48	1.18	284	20	17.62	34.70	4.42	1.20	282	0.06
33	16.26	34.87	3.05	1.63	239	30	16.60	34.81	3.35	1.54	250	0.09
48	13.98	34.94	1.41	2.08	186	50	13.85	34.93	1.37	2.11	184	0.13
67	13.48	34.88	1.30	2.17	181	75	13.04	34.86	1.33	2.17	173	0.18
86	12.79	34.80	1.41	2.16	173	100	12.57	34.78	1.57	2.15	171	0.22
145	12.33	34.79	1.62	2.15	165	150	12.31	34.79	1.60	2.15	165	0.30
202	12.16	-	1.44	2.15	-	200	12.17	34.78	1.45	2.15	163	0.39
265	11.96	34.76	0.84	2.33	161	250	12.05	34.77	0.99	2.20	162	0.47
313	11.21	34.70	0.41	2.65	152	300	11.50	34.72	0.44	2.59	156	0.56
369	10.20	34.68	0.52	2.71	136	400	9.52	34.60	0.84	2.76	131	0.70
444	8.68	34.58	0.81	2.83	120	500	7.90	34.54	0.98	2.91	113	0.84
530	7.60	34.52	1.09	2.93	109	600	6.98	34.48	1.36	2.97	104	0.95
629	6.72	34.49	1.47	2.98	100	700	6.03	34.50	1.76	2.98	90	1.06
787	5.34	34.51	2.05	2.98	82	800	5.28	34.50	2.08	2.96	81	1.15
						1000	4.64	34.50	2.07	2.93	74	1.33
942	4.88	34.49	2.11	2.90	77							
1137	4.24	34.54	1.90	3.02	67							

a) Pretrip below 206 meters.

b) Pretrip below 410 meters.

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT		Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-74

HORIZON; December 5, 1955; 0034 GCT; 0°00', 100°03'W; sounding, 1795 fm; wind, 175°, force 3; weather, clear; sea, slight; wire angle, 08°.

0	21.76	34.14	5.11	0.69	425	0	21.76	34.14	5.11	0.69	425	0.00
12	21.24	34.27	5.05	0.68	402	10	21.50	34.20	5.07	0.68	414	0.04
19	18.33	34.50	4.18	1.07	314	20	18.20	34.52	4.16	1.08	308	0.08
28	16.11	34.76	3.72	1.38	244	30	15.95	34.78	3.58	1.41	238	0.11
38	15.01	34.87	3.23	1.52	212	50	13.78	34.84	2.99	1.62	189	0.15
72	13.62	34.83	2.93	1.64	187	75	13.60	34.83	2.91	1.65	186	0.20
97	13.42	34.85	2.77	1.67	182	100	13.39	34.85	2.76	1.68	181	0.24
146	12.82	34.87	2.33	1.84	169	150	12.80	34.87	2.33	1.85	168	0.33
200	12.38	34.85	2.18	1.97	162	200	12.38	34.85	2.18	1.97	161	0.41
266	12.16	34.79	1.49	2.22	162	250	12.20	34.81	1.60	2.19	161	0.49
313	11.15	34.71	0.43	2.56	150	300	11.60	34.75	0.57	2.44	155	0.58
371	9.76	34.62	0.54	2.71	133	400	9.29	34.61	0.66	2.77	126	0.72
447	8.59	34.58	0.78	2.88	119	500	7.91	34.54	0.92	2.98	112	0.86
527	7.60	34.47	1.04	3.00	112	600	7.21	34.48	1.14	3.01	107	0.97
632	7.04	34.47	1.19	3.01	105	700	6.47	34.47	1.43	3.02	97	1.08
789	5.64	34.45	1.71	3.02	89	800	5.56	34.44	1.74	3.02	88	1.19
939	4.95	34.43	1.88	3.00	83	1000	4.69	34.42	1.90	3.02	80	1.37
1138	4.14	34.42	1.79	3.16	75							

H-75

HORIZON; December 7, 1955; 0819 GCT; 1°14'N, 100°34'W; sounding, 1780 fm; wind, 150°, force 3; weather, overcast; sea, moderate; wire angle, 02°.

0	23.76	33.75	5.01	0.47	507	0	23.76	33.75	5.01	0.47	507	0.00
20	17.85	34.54	3.59	1.19	301	10	23.75	33.75	5.01	0.47	506	0.05
29	16.27	34.74	3.33	1.44	298	20	17.85	34.54	3.59	1.19	302	0.09
39	13.86	34.85	1.97	1.96	190	30	16.26	34.74	3.34	1.44	248	0.12
49	13.44	34.85	1.73	2.05	182	50	13.42	34.85	1.74	2.05	182	0.16
63	13.32	34.85	1.78	2.05	180	75	13.22	34.86	1.85	2.04	177	0.21
102	12.88	34.87	2.18	1.97	170	100	12.91	34.87	2.17	1.98	171	0.25
155	12.56	34.81	2.09	2.05	168	150	12.57	34.81	2.10	2.05	168	0.34
215	12.21	34.79	1.53	2.24	163	200	12.29	34.80	1.76	2.17	164	0.42
267	12.08	34.76	1.10	2.37	162	250	12.11	34.76	1.18	2.37	163	0.50
316	11.50	34.75	0.50	2.57	153	300	11.74	34.76	0.67	2.51	157	0.59
374	10.06	34.66	0.41	2.86	136	400	9.55	34.61	0.59	2.90	131	0.73
452	8.64	34.58	0.67	2.99	120	500	8.05	34.52	0.83	3.04	115	0.88
534	7.75	34.52	0.91	3.07	111	600	7.16	34.52	1.09	3.12	103	0.99
641	6.83	34.52	1.17	3.13	99	700	6.37	34.52	1.29	3.16	93	1.09
804	5.56	34.50	1.56	3.16	84	800	5.59	34.50	1.55	3.17	85	1.19
958	5.02	34.48	1.80	3.01	80	1000	4.84	34.48	1.82	3.02	78	1.37
1160	3.98	34.47	1.85	3.12	70							

H-76

HORIZON; December 7, 1955; 1633, 1810 GCT; 2°01'N, 101°00'W; sounding, 1890 fm; wind, 135°, force 4; weather, cloudy; sea, rough; wire angle, 27°, 35°.

0	24.90	33.62	4.76	0.48	549	0	24.90	33.62	4.76	0.48	549	0.00
16	24.88	33.64	4.83	0.36	547	10	24.89	33.63	4.80	0.40	548	0.05
33	24.89	33.58	4.83	0.39	552	20	24.88	33.62	4.83	0.37	549	0.11
37	24.88	33.62	4.71	0.49	550	30	24.89	33.59	4.83	0.38	551	0.16
42	24.74	33.57	4.67	0.48	549	50	19.60	34.48	4.35	1.03	345	0.25
59	15.32	34.88	2.30	1.88	218	75	14.77	34.90	2.29	1.91	205	0.32
84	14.22	34.88	2.22	1.94	195	100	13.70	34.88	1.87	2.09	185	0.37
126	13.34	34.88	1.74	2.12	178	150	13.10	34.88	1.87	2.12	173	0.46
165	12.94	34.87	1.91	2.12	171	200	12.62	34.87	1.47	2.23	164	0.55
228	12.44	34.85	1.27	2.31	162	250	12.25	34.82	1.15	2.42	162	0.64
267	12.07	34.79	0.96	2.52	161	300	11.40	34.78	0.49	2.66	149	0.72
315	11.16	34.77	0.45	2.69	145	400	9.91	34.66	0.51	2.93	133	0.87
375	10.29	34.69	0.39	2.84	137	500	8.50	34.55	0.79	3.08	120	1.00
						600	7.32	34.50	1.18	3.22	107	1.13
438	9.34	34.60	0.65	3.03	129	700	6.35	34.47	1.33	3.29	96	1.24
519	8.22	34.52	0.87	3.10	118	800	5.79	34.48	1.40	3.35	88	1.33
643	6.82	34.47	1.27	3.26	102							
768	6.00	34.47	1.38	3.32	92							
951	4.79	34.49	1.43	3.48	76							

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; December 8, 1955; 0252, 0328 GCT; 3°03'N, 101°35'W; sounding, 1605 fm; wind, 195°, force 4; weather, intermittent slight drizzle; sea, rough; wire angle, 05°, 05°.

H-77

0	25.17	33.74	4.96	0.33	548	0	25.17	33.74	4.96	0.33	548	0.00
24	25.18	33.78	4.92	0.31	546	10	25.17	33.75	4.94	0.32	547	0.05
47	24.88	33.86	4.83	0.39	532	20	25.18	33.77	4.93	0.32	546	0.11
57	16.16	34.81	2.88	1.67	241	30	25.17	33.78	4.91	0.34	546	0.16
67	15.70	34.85	2.90	1.66	228	50	23.50	34.11	4.62	0.62	474	0.27
81	14.48	34.87	2.35	1.86	201	75	14.98	34.86	2.62	1.81	212	0.35
95	13.98	34.92	2.11	1.87	187	100	13.89	34.90	2.08	1.88	187	0.40
						150	13.12	34.96	1.38	2.22	169	0.49
147	13.14	34.94	1.40	2.21	170	200	12.67	34.87	1.13	2.39	165	0.58
198	12.70	34.88	1.14	2.37	165	250	11.98	34.86	0.72	2.57	154	0.66
257	11.86	34.86	0.70	2.57	152	300	10.90	34.74	0.78	2.53	143	0.73
303	10.82	34.74	0.77	2.52	142	400	9.37	34.60	0.61	2.87	128	0.88
358	9.99	34.71	0.71	2.64	130	500	7.56	34.59	0.84	3.04	103	1.01
432	8.76	34.60	0.50	3.06	120	600	6.58	34.54	1.39	2.98	94	1.12
511	7.39	34.58	0.91	3.02	102	700	6.04	34.50	1.20	3.08	90	1.21
613	6.52	34.54	1.39	2.97	93	800	5.56	34.51	1.10	3.13	84	1.31
770	5.70	34.50	1.03	3.13	86	1000	4.58	34.55	1.63	3.07	70	1.49
921	4.93	34.54	1.55	3.06	74							
1124	3.94	34.56	1.77	3.13	63							

HORIZON; December 8, 1955; 1155 GCT; 4°08'N, 102°02'W; sounding, 1700 fm; wind, 175°, force 5; weather, overcast; sea, rough; wire angle, 10°.

H-78

0	25.57	33.75	4.90	0.36	560	0	25.57	33.75	4.90	0.36	560	0.00
30	25.58	33.80	4.83	0.32	556	10	25.57	33.77	4.88	0.35	558	0.06
59	24.81	34.00	4.54	0.49	520	20	25.58	33.78	4.85	0.34	557	0.11
64	20.44	34.51	2.81	1.45	364	30	25.58	33.80	4.83	0.32	556	0.17
69	15.84	34.81	1.99	1.97	234	50	25.57	33.80	4.80	0.32	556	0.28
78	14.70	34.85	1.71	2.04	207	75	14.90	34.85	1.74	2.03	212	0.37
108	13.51	34.85	1.68	2.12	183	100	13.70	34.86	1.62	2.10	186	0.42
147	13.15	34.88	1.93	2.09	174	150	13.11	34.88	1.92	2.10	173	0.52
195	12.70	34.87	1.23	2.33	166	200	12.65	34.85	1.17	2.34	166	0.61
266	11.98	34.79	0.86	2.43	159	250	12.18	34.81	0.85	2.42	162	0.69
313	10.78	34.67	1.33	2.48	146	300	11.11	34.71	1.32	2.44	149	0.77
369	10.00	34.61	1.10	2.68	138	400	9.58	34.60	0.79	2.81	132	0.92
444	8.86	34.60	0.39	3.15	121	500	8.07	34.60	0.44	3.24	110	1.05
530	7.68	34.60	0.52	3.24	104	600	6.94	34.54	0.66	3.25	98	1.16
633	6.69	34.52	0.74	3.25	97	700	6.23	34.50	1.03	3.33	93	1.27
794	5.60	34.49	1.19	3.41	86	800	5.56	34.49	1.20	3.41	86	1.36
951	4.65	34.49	1.26	3.44	75	1000	4.43	34.49	1.28	3.48	73	1.55
1158	3.80	34.49	1.55	3.60	66							

HORIZON; December 8, 1955; 1934 GCT; 5°05'N, 102°26'W; sounding, 1600 fm; wind, 180°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

H-79

0	25.72	33.77	4.85	0.32	562	0	25.72	33.77	4.85	0.32	562	0.00
23	25.66	33.78	4.85	0.30	560	10	25.70	33.77	4.85	0.31	561	0.06
46	25.55	34.00	4.84	0.30	541	20	25.67	33.78	4.85	0.30	560	0.11
56	23.52	34.27	4.06	0.76	463	30	25.63	33.80	4.85	0.30	557	0.17
66	19.11	34.67	2.90	1.58	320	50	25.42	34.04	4.76	0.31	534	0.28
75	14.78	34.76	1.03	2.34	215	75	14.78	34.76	1.03	2.34	215	0.37
89	13.46	34.85	1.42	2.28	182	100	13.20	34.84	1.44	2.28	178	0.42
145	12.54	34.81	1.11	2.39	168	150	12.50	34.81	1.06	2.40	167	0.51
194	11.98	34.79	0.85	2.50	159	200	11.90	34.78	0.83	2.47	158	0.60
251	10.87	34.67	1.61	2.42	148	250	10.88	34.67	1.61	2.42	147	0.67
295	10.34	34.66	0.80	2.69	140	300	10.27	34.64	0.82	2.71	140	0.74
345	9.60	34.54	0.82	2.79	137	400	8.96	34.54	0.58	3.02	127	0.89
416	8.79	34.54	0.50	3.04	124	500	7.85	34.51	0.38	3.35	113	1.02
489	7.96	34.52	0.38	3.34	114	600	6.99	34.50	0.32	3.41	103	1.14
582	7.13	34.49	0.32	3.40	104	700	6.13	34.51	0.59	3.45	91	1.24
723	6.00	34.51	0.65	3.47	89	800	5.52	34.51	0.78	3.42	83	1.33
862	5.16	34.51	1.09	3.42	79	1000	4.47	34.52	1.28	3.42	72	1.52
1052	4.33	34.51	1.32	3.42	71							

SIO

EASTROPIC

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-80

HORIZON; December 9, 1955; 0358 GCT; 6°00'N, 102°58'W; sounding, 1725 fm; wind, 200°, force 4; weather, intermittent slight drizzle; sea, moderate; wire angle, 13°.

0	25.94	33.71	4.80	0.38	573	0	25.94	33.71	4.80	0.38	573	0.00
24	25.98	33.78	4.78	0.28	570	10	25.96	33.74	4.79	0.33	572	0.06
44	25.87	33.91	4.71	0.34	557	20	25.98	33.77	4.78	0.28	571	0.11
54	25.20	34.02	4.42	0.48	529	30	25.97	33.80	4.77	0.28	568	0.17
58	22.84	34.29	3.62	0.94	443	50	25.68	33.97	4.64	0.40	548	0.28
68	16.80	34.79	1.16	2.24	257	75	15.30	34.83	1.01	2.30	221	0.38
77	14.41	34.84	0.96	2.30	202	100	13.01	34.92	0.81	2.39	169	0.43
127	12.48	34.90	0.75	2.50	160	150	12.07	34.90	0.82	2.50	152	0.51
193	11.30	34.90	0.77	2.50	139	200	11.18	34.89	0.72	2.51	137	0.59
265	10.46	34.82	0.72	2.63	130	250	10.57	34.83	0.66	2.59	131	0.66
315	9.89	34.78	0.87	2.72	124	300	10.05	34.79	0.88	2.69	126	0.72
371	9.26	34.75	0.50	2.87	116	400	8.89	34.71	0.40	3.06	114	0.85
447	8.19	34.67	0.27	3.22	106	500	7.61	34.68	0.38	3.29	97	0.96
528	7.32	34.67	0.35	3.31	94	600	6.79	34.62	0.31	3.35	91	1.07
632	6.58	34.60	0.36	3.35	89	700	6.10	34.53	0.59	3.41	88	1.16
788	5.48	34.56	0.82	3.43	79	800	5.39	34.56	0.85	3.42	77	1.26
940	4.79	34.61	1.11	3.31	68	1000	4.54	34.61	1.23	3.32	65	1.41
1137	3.92	34.61	1.31	3.35	58							

H-81

HORIZON; December 9, 1955; 1235 GCT; 6°59'N, 103°25'W; sounding, 1740 fm; wind, 195°, force 4; weather, slight rain; sea, rough; wire angle, 19°.

0	26.64	33.30	4.59	0.26	624	0	26.64	33.30	4.59	0.26	624	0.00
27	26.92	33.73	4.82	0.29	601	10	26.73	33.40	4.64	0.26	620	0.06
36	25.89	34.40	4.71	0.40	522	20	26.83	33.54	4.75	0.27	612	0.12
46	20.67	34.52	2.25	1.68	369	30	26.92	33.74	4.85	0.30	600	0.18
54	16.48	34.70	1.14	2.30	256	50	19.32	34.56	1.85	2.09	332	0.28
68	14.44	34.78	0.64	2.55	207	75	13.47	34.79	0.63	2.46	186	0.34
83	13.13	34.92	0.68	2.45	171	100	12.77	34.91	0.86	2.54	165	0.39
143	12.00	34.83	0.87	2.61	156	150	11.87	34.81	0.82	2.58	155	0.47
193	11.20	34.74	0.82	2.58	148	200	11.13	34.73	0.90	2.59	148	0.54
249	10.58	34.70	1.08	2.71	141	250	10.57	34.70	1.07	2.72	141	0.62
294	10.03	34.69	0.66	2.78	133	300	9.99	34.70	0.64	2.80	132	0.69
347	9.50	34.72	0.47	2.95	122	400	8.82	34.68	0.29	3.18	114	0.83
417	8.58	34.66	0.23	3.24	112	500	7.59	34.58	0.25	3.40	104	0.94
495	7.62	34.58	0.26	3.39	105	600	6.70	34.56	0.25	3.46	94	1.05
592	6.76	34.57	0.20	3.46	94	700	5.94	34.52	0.61	3.45	87	1.14
733	5.77	34.52	0.67	3.46	85	800	5.44	34.52	0.63	3.54	82	1.24
875	5.06	34.51	0.65	3.56	78	1000	4.47	34.53	0.87	3.51	70	1.41
1063	4.12	34.54	1.05	3.46	66							

H-82

HORIZON; December 9, 1955; 2219 GCT; 8°00'N, 104°00'W; sounding, 1760 fm; wind, 195°, force 2; weather, overcast; sea, slight; wire angle, 10°.

0	27.37	33.13	4.65	0.27	658	0	27.37	33.13	4.65	0.27	658	0.00
19	26.91	33.39	4.84	0.27	625	10	26.92	33.28	4.84	0.27	634	0.06
29	24.19	34.05	3.84	0.91	498	20	26.90	33.41	4.84	0.27	623	0.13
39	18.68	34.60	1.19	2.27	314	30	24.02	34.07	3.76	0.98	492	0.18
59	14.93	34.73	0.34	2.68	221	50	16.24	34.68	0.58	2.48	252	0.26
78	13.42	34.80	0.33	2.63	185	75	13.65	34.78	0.32	2.66	191	0.31
97	12.43	34.77	0.45	2.64	168	100	12.32	34.77	0.44	2.66	166	0.36
146	11.53	34.74	0.34	2.83	154	150	11.45	34.73	0.35	2.83	154	0.44
196	10.77	34.69	0.39	2.81	144	200	10.71	34.70	0.40	2.82	143	0.51
269	10.03	34.66	0.53	2.91	135	250	10.19	34.67	0.49	2.89	136	0.59
317	9.62	-	0.48	2.96	-	300	9.75	34.65	0.52	2.94	131	0.66
373	9.11	-	0.27	3.11	-	400	8.85	34.61	0.24	3.18	120	0.78
449	8.25	-	0.08	3.34	-	500	7.57	34.55	0.25	3.42	106	0.91
532	7.06	-	0.27	3.49	-	600	6.35	34.52	0.33	3.50	93	1.01
629	6.13	34.51	0.37	3.50	91	700	5.75	34.51	0.41	3.52	86	1.11
791	5.22	34.51	0.61	3.54	80	800	5.19	34.51	0.63	3.54	79	1.20
942	4.68	34.51	0.92	3.52	74	1000	4.45	34.51	0.99	3.53	72	1.37
1141	3.83	34.52	1.15	3.54	64							

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T		Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g		m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; December 10, 1955; 0800 GCT; 9°03'N, 104°34'W; sounding, 1145 fm; wind, 350°, force 3; weather, clear; sea, moderate; wire angle, 10°.

H-83

0	27.11	33.22	4.84	0.46	643	0	27.11	33.22	4.84	0.46	643	0.00
15	27.00	33.24	4.78	0.37	639	10	27.05	33.23	4.81	0.40	642	0.06
24	19.32	34.58	1.34	2.27	331	20	25.50	33.79	4.39	0.64	554	0.12
34	16.58	34.67	0.61	2.58	260	30	17.90	34.66	0.92	2.37	291	0.17
49	14.78	34.73	0.42	2.64	217	50	14.57	34.78	0.36	2.65	209	0.22
64	13.74	34.87	0.32	2.68	186	75	13.35	34.83	0.36	2.68	182	0.27
84	13.04	34.81	0.38	2.68	177	100	12.73	34.79	0.36	2.69	173	0.31
147	12.02	34.81	0.38	2.73	158	150	11.98	34.80	0.39	2.73	158	0.39
205	11.17	34.71	0.46	2.80	151	200	11.25	34.72	0.47	2.78	152	0.47
267	10.45	34.70	0.34	2.89	139	250	10.61	34.70	0.38	2.86	142	0.55
314	9.83	34.67	0.23	3.06	131	300	10.01	34.68	0.25	3.02	134	0.62
366	8.94	34.63	0.15	3.20	121	400	8.50	34.63	0.15	3.27	114	0.75
446	7.96	34.56	0.15	3.36	111	500	7.37	34.54	0.15	3.44	104	0.88
527	7.10	34.53	0.16	3.46	101	600	6.50	34.52	0.23	3.54	94	0.97
630	6.27	34.51	0.27	3.55	92	700	5.82	34.52	0.36	3.58	86	1.07
784	5.30	34.52	0.52	3.62	80	800	5.21	34.53	0.57	3.62	78	1.17
937	4.58	34.54	0.84	3.62	71	1000	4.33	34.54	0.98	3.61	68	1.34
1137	3.80	34.54	1.14	3.55	63							

HORIZON; December 10, 1955; 1529 GCT; 10°00'N, 105°05'W; sounding, 1680 fm; wind, 335°, force 4; weather, cloudy; sea, moderate; wire angle, 15°.

H-84

0	27.24	33.31	4.65	0.48	641	0	27.24	33.31	4.65	0.48	641	0.00
15	27.26	33.32	4.74	0.40	641	10	27.25	33.32	4.66	0.43	641	0.06
24	26.07	33.68	4.20	0.71	580	20	27.20	33.35	4.73	0.40	636	0.13
34	18.78	34.63	0.96	2.20	314	30	22.40	34.30	2.47	1.55	430	0.18
48	15.21	34.81	0.11	-	221	50	14.85	34.84	0.13	2.45	212	0.25
63	13.74	34.87	0.38	2.44	186	75	13.30	34.89	0.20	2.53	176	0.29
82	13.08	34.88	0.23	2.62	173	100	12.77	34.85	0.30	2.65	169	0.34
144	12.27	34.81	0.33	2.66	163	150	12.18	34.81	0.30	2.66	161	0.42
200	11.23	34.78	0.55	2.66	146	200	11.23	34.78	0.55	2.66	146	0.50
262	10.63	34.78	0.23	2.66	136	250	10.75	34.78	0.23	2.64	137	0.58
308	10.08	34.70	0.22	2.91	133	300	10.19	34.72	0.22	2.86	133	0.64
365	9.50	34.66	0.17	2.84	126	400	9.00	34.64	0.12	2.89	120	0.77
439	8.35	34.62	0.12	3.08	112	500	7.68	34.60	0.14	3.32	104	0.89
518	7.48	34.59	0.14	3.37	102	600	6.86	34.55	0.13	3.30	97	1.00
623	6.67	34.54	0.15	3.30	95	700	6.07	34.51	0.22	3.41	90	1.11
779	5.48	34.52	0.32	3.49	82	800	5.33	34.53	0.37	3.43	79	1.20
929	4.62	34.57	0.69	3.25	68	1000	4.34	34.58	0.78	3.22	65	1.36
1123	3.92	34.60	0.95	3.19	59							

HORIZON; December 10, 1955; 2310 GCT; 10°59'N, 105°35'W; sounding, 1830 fm; wind, 190°, force 3; weather, moderate rain; sea, slight; wire angle, 13°.

H-85

0	27.40	33.21	4.71	0.38	653	0	27.40	33.21	4.71	0.38	653	0.00
28	26.90	34.00	4.65	0.55	581	10	27.39	33.24	4.71	0.38	651	0.07
38	21.88	34.34	2.26	1.69	413	20	27.37	33.25	4.71	0.39	649	0.13
47	19.40	34.52	1.17	1.99	337	30	26.40	34.19	4.50	0.67	553	0.19
57	16.84	34.58	0.50	2.46	273	50	18.90	34.55	1.00	2.14	323	0.28
72	14.51	34.66	0.17	2.50	217	75	14.14	34.73	0.16	2.59	205	0.34
86	13.58	34.79	0.15	2.66	189	100	12.99	34.84	0.21	2.62	173	0.39
149	11.98	34.76	0.22	2.57	161	150	11.97	34.76	0.22	2.57	161	0.47
199	11.24	34.74	0.35	2.58	150	200	11.21	34.74	0.34	2.58	149	0.55
260	10.44	34.67	0.25	2.66	141	250	10.54	34.68	0.26	2.64	142	0.64
306	9.96	34.63	0.23	2.67	136	300	10.00	34.63	0.23	2.66	136	0.70
362	9.36	34.61	0.14	2.96	128	400	8.91	34.58	0.12	3.01	123	0.85
436	8.48	34.54	0.12	3.04	120	500	7.73	34.52	0.14	3.06	110	0.97
520	7.48	34.52	0.17	3.08	107	600	6.72	34.52	0.26	3.12	97	1.08
618	6.55	34.51	0.29	3.12	96	700	5.91	34.49	0.37	3.22	89	1.18
772	5.42	34.49	-	-	84	800	5.24	34.49	0.42	3.34	82	1.27
923	4.66	34.49	0.55	3.40	75	1000	4.42	34.48	0.59	3.40	73	1.46
1117	4.02	34.48	0.79	3.41	69							

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-86

HORIZON; December 11, 1955; 0708 GCT; 12°01'N, 105°59'W; sounding, 1850 fm; wind, 090°, force 6; weather, overcast; sea, very rough; wire angle, 35°.

0	27.24	33.39	4.79	0.42	636	0	27.24	33.39	4.79	0.42	636	0.00
26	27.27	33.36	4.86	0.36	638	10	27.27	33.38	4.81	0.39	637	0.06
35	27.22	33.42	4.81	0.56	633	20	27.27	33.37	4.84	0.38	638	0.13
44	24.91	33.99	4.08	0.83	522	30	27.25	33.39	4.85	0.50	636	0.19
53	21.06	34.42	2.33	1.62	386	50	22.60	34.30	3.28	1.49	436	0.30
65	16.48	34.63	0.39	2.46	261	75	15.00	34.75	0.18	2.42	221	0.38
77	14.86	34.76	0.17	2.42	217	100	13.30	34.81	0.16	2.58	182	0.43
128	12.55	34.79	0.24	2.58	169	150	12.15	34.77	0.24	2.59	163	0.52
168	11.89	34.76	0.25	2.60	159	200	11.42	34.76	0.25	2.60	151	0.61
212	11.24	34.76	0.23	2.61	148	250	10.91	34.71	0.16	2.82	146	0.68
249	10.92	34.71	0.17	2.82	146	300	10.31	34.69	0.10	2.86	138	0.75
295	10.36	34.69	0.11	2.86	138	400	8.98	34.57	0.14	3.11	125	0.89
359	9.65	34.64	0.20	2.93	130	500	7.57	34.54	0.13	3.34	107	1.02
429	8.46	34.54	0.12	3.14	120	600	6.67	34.50	0.16	3.45	98	1.13
521	7.37	34.53	0.14	3.38	104	700	6.00	34.49	0.26	3.51	91	1.23
664	6.22	34.49	0.20	3.50	93	800	5.49	34.49	0.38	3.54	84	1.32
806	5.44	34.49	0.42	3.55	84	1000	4.52	34.52	0.57	3.63	72	1.51
1002	4.50	34.52	0.58	3.64	72							

H-87

HORIZON; December 11, 1955; 1538, 1625 GCT; 13°00'N, 106°38'W; sounding, 2235 fm; wind, 085°, force 4; weather, cloudy; sea, rough; wire angle, 30°, 35°.

0	27.44	33.53	4.63	0.47	632	0	27.44	33.53	4.63	0.47	632	0.00
32	27.45	33.53	4.65	0.37	632	10	27.44	33.53	4.64	0.45	632	0.06
41	25.86	33.97	4.20	0.68	553	20	27.44	33.53	4.64	0.43	632	0.12
49	21.70	34.42	2.18	1.66	403	30	27.45	33.53	4.65	0.40	632	0.19
58	18.40	34.53	0.82	2.10	313	50	21.10	34.42	1.95	1.69	387	0.29
70	16.41	34.72	0.18	2.60	253	75	15.60	34.74	0.12	2.65	234	0.37
87	14.80	34.75	0.11	2.66	216	100	14.00	34.78	0.12	2.70	198	0.42
134	12.96	34.83	0.23	2.78	174	150	12.58	34.80	0.20	2.74	169	0.52
178	12.00	34.72	0.15	2.72	164	200	11.59	34.78	0.14	2.80	153	0.61
231	11.14	34.69	0.14	2.89	152	250	10.92	34.68	0.17	2.85	148	0.68
270	10.62	34.67	0.20	2.82	144	300	10.17	34.66	0.18	2.84	137	0.75
317	9.86	34.65	0.17	2.98	133	400	8.82	34.58	0.14	3.14	122	0.89
						500	7.47	34.52	0.12	3.35	107	1.02
378	9.11	34.56	0.14	3.13	128	600	6.67	34.51	0.15	3.42	97	1.13
449	8.04	34.54	0.15	3.24	114	700	5.92	34.50	0.20	3.43	88	1.23
541	7.11	34.51	0.12	3.38	103	800	5.35	34.50	0.31	3.45	82	1.31
682	6.02	34.51	0.20	3.42	89	1000	4.31	34.54	0.48	3.46	68	1.49
821	5.27	34.49	0.32	3.45	82							
1002	4.29	34.54	0.49	3.46	67							

H-88

HORIZON; December 12, 1955; 0038, 0056, 0135 GCT; 14°04'N, 107°13'W; sounding, 2080 fm; wind, 040°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°, 07°, 10°.

0	27.22	33.84	4.70	0.45	603	0	27.22	33.84	4.70	0.45	603	0.00
39	26.98	33.89	4.53	0.42	591	10	27.21	33.84	4.69	0.45	602	0.06
48	24.38	34.23	4.09	0.85	490	20	27.18	33.85	4.68	0.44	602	0.12
58	20.12	34.43	2.15	1.76	362	30	27.17	33.85	4.67	0.44	601	0.18
68	17.38	34.54	0.74	2.40	288	50	24.10	34.28	3.95	0.98	479	0.29
						75	16.67	34.59	0.50	2.51	268	0.38
78	16.30	34.61	0.39	2.52	258	100	13.96	34.78	0.14	3.22	197	0.44
97	14.06	34.78	0.14	3.19	200	150	12.26	34.74	0.17	3.29	168	0.53
123	12.67	34.83	0.15	3.24	168	200	11.75	34.78	0.17	3.32	155	0.62
206	11.71	34.78	0.17	3.32	154	250	11.09	34.73	0.15	3.04	147	0.70
268	10.76	34.71	0.15	2.90	143	300	10.26	34.68	0.14	2.85	137	0.77
315	10.03	34.66	0.14	2.86	135	400	8.95	34.61	0.14	3.08	122	0.91
378	9.20	34.63	0.14	3.04	124	500	7.65	34.53	0.14	3.21	109	1.03
						600	6.66	34.51	0.14	3.30	97	1.15
450	8.27	34.56	0.14	3.15	115	700	5.98	34.50	0.20	3.35	89	1.25
532	7.25	34.52	0.14	3.22	104	800	5.26	34.49	0.25	3.39	82	1.34
636	6.41	34.51	0.14	3.34	94	1000	4.48	34.52	0.54	3.43	72	1.52
796	5.30	34.49	0.24	3.38	82							
947	4.68	34.50	0.50	3.42	74							
1147	3.84	34.54	0.74	3.38	63							

356

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δT	Z	T	S	O ₂	PO ₄ -P	δT	ΔD
m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	µg at/L	10 ⁻⁵ cm ³ /g	dyn m

SIO

EASTROPIC

HORIZON; December 12, 1955; 0851 GCT; 14°58'N, 107°37'W; sounding, 2200 fm; wind, 020°, force 4; weather, partly cloudy; sea, rough; wire angle, 06°.

H-89

0	26.61	33.77	4.67	0.44	589	0	26.61	33.77	4.67	0.44	589	0.00
33	24.69	34.14	3.68	0.68	505	10	26.60	33.88	4.65	0.45	580	0.06
43	21.81	34.26	3.58	1.01	417	20	26.60	34.00	4.65	0.45	572	0.12
53	20.13	34.31	2.80	1.48	371	30	26.55	34.07	4.63	0.47	565	0.17
64	17.95	34.47	1.09	2.10	306	50	20.80	34.29	3.26	1.30	389	0.27
78	15.15	34.61	0.16	2.65	234	75	15.42	34.59	0.18	2.63	241	0.35
97	13.53	34.76	0.13	2.60	190	100	13.44	34.77	0.12	2.61	188	0.40
151	12.19	34.77	0.13	2.66	164	150	12.21	34.78	0.12	2.65	164	0.49
204	11.44	34.74	0.17	2.76	153	200	11.51	34.74	0.17	2.75	154	0.57
268	10.71	34.69	0.15	2.78	144	250	10.86	34.71	0.15	2.78	145	0.65
314	10.08	34.61	0.17	2.98	139	300	10.29	34.64	0.17	2.90	141	0.72
371a)	9.21	34.58	0.16	3.00	128							

HORIZON; December 12, 1955; 1713 GCT; 16°00'N, 108°09'W; sounding, 2125 fm; wind, 355°, force 3; weather, cloudy; sea, moderate; wire angle, 14°.

H-90

0	26.25	34.07	4.56	0.43	557	0	26.25	34.07	4.56	0.43	557	0.00
24	26.21	34.22	4.73	0.42	544	10	26.25	34.13	4.60	0.43	552	0.06
33	21.90	34.30	4.58	0.74	417	20	26.24	34.19	4.70	0.42	548	0.11
43	18.42	34.34	3.79	1.22	327	30	24.60	34.28	4.73	0.67	492	0.16
53	17.06	34.38	3.03	1.56	292	50	17.51	34.36	3.31	1.44	303	0.24
73	14.98	34.69	0.42	2.62	224	75	14.83	34.70	0.37	2.64	221	0.31
107	13.16	34.78	0.14	2.70	182	100	13.40	34.78	0.15	2.67	186	0.36
156	11.84	34.78	0.14	2.54	157	150	11.97	34.78	0.14	2.57	159	0.44
202	11.20	34.76	0.13	2.62	147	200	11.21	34.76	0.13	2.61	147	0.52
263	10.62	34.72	0.13	2.80	140	250	10.72	34.73	0.13	2.78	142	0.60
311	9.97	34.67	0.09	2.83	133	300	10.13	34.68	0.08	2.81	135	0.67
367	9.21	34.65	0.16	3.08	123	400	8.76	34.60	0.12	3.10	120	0.80
445	8.26	34.58	0.11	3.12	114	500	7.64	34.58	0.17	3.16	104	0.92
524	7.38	34.58	0.17	3.20	101	600	6.69	34.50	0.14	3.25	98	1.03
627	6.47	34.49	0.14	3.26	96	700	5.92	34.48	0.17	3.34	90	1.14
780	5.48	34.48	0.18	3.41	85	800	5.38	34.48	0.19	3.41	84	1.23
927	4.78	34.51	0.29	3.54	75	1000	4.50	34.52	0.38	3.52	72	1.41
1122	3.89	34.52	0.70	3.46	65							

HORIZON; December 13, 1955; 0111, 0145 GCT; 17°00'N, 108°38'W; sounding, 2070 fm; wind, 010°, force 3; weather, cloudy; sea, slight; wire angle, 12°, 12°.

H-91

0	25.40	34.36	4.78	0.54	510	0	25.40	34.36	4.78	0.54	510	0.00
19	25.37	34.42	4.75	0.60	505	10	25.40	34.39	4.77	0.57	508	0.05
28	20.39	34.40	3.73	1.24	371	20	25.36	34.42	4.74	0.61	504	0.10
37	18.08	34.44	1.92	1.81	312	30	19.60	34.40	3.11	1.45	351	0.14
46	17.27	34.51	1.45	2.08	287	50	16.80	34.52	1.35	2.20	276	0.21
62	15.09	34.56	0.76	2.46	236	75	13.87	34.68	0.19	2.61	203	0.27
80	13.52	34.74	0.12	2.66	192	100	12.89	34.86	0.14	2.74	170	0.32
145	12.04	34.85	0.15	2.65	156	150	11.99	34.84	0.15	2.63	155	0.39
198	11.42	34.78	0.18	2.54	149	200	11.41	34.78	0.18	2.55	149	0.47
258	10.72	34.74	0.14	2.84	141	250	10.84	34.75	0.14	2.78	142	0.55
304	10.16	34.72	0.13	2.74	132	300	10.22	34.73	0.12	2.73	133	0.62
361	9.41	34.70	0.20	2.98	122	400	8.92	34.68	0.20	3.04	116	0.76
437	8.37	34.65	0.17	3.07	110	500	7.64	34.61	0.15	3.20	102	0.88
517	7.43	34.60	0.14	3.22	101	600	6.53	34.56	0.17	3.24	92	0.98
						700	5.73	34.51	0.19	3.34	85	1.07
637	6.19	34.54	0.17	3.26	89	800	5.21	34.51	0.20	3.40	80	1.16
794	5.24	34.51	0.19	3.40	80	1000	4.30	34.54	0.48	3.36	68	1.33
948	4.54	34.52	0.34	3.38	72							
1149	3.86	34.58	0.75	3.29	61							

a) Pretrip below 371 meters.

SIO

EASTROPIC

OBSERVED					COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ_T	Z	T	S	O ₂	PO ₄ -P	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm ³ /g	dyn m

H-92

HORIZON; December 13, 1955; 0952 GCT; 18°02'N, 109°12'W; sounding, 1960 fm; wind, 095°, force 2; weather, clear; sea, slight; wire angle, 07°.

0	25.73	34.22	4.63	0.42	531	0	25.73	34.22	4.63	0.42	531	0.00
24	25.72	34.23	4.71	0.44	529	10	25.73	34.22	4.67	0.42	531	0.05
48	22.10	34.24	4.50	0.79	426	20	25.72	34.23	4.70	0.43	530	0.11
53	21.26	34.20	4.43	0.81	408	30	25.71	34.24	4.72	0.45	528	0.16
63	17.98	34.29	3.01	1.40	320	50	22.06	34.24	4.50	0.80	426	0.25
77	15.09	34.38	1.38	2.16	250	75	15.48	34.35	1.76	2.08	260	0.34
97	13.99	34.56	0.19	2.58	214	100	13.80	34.60	0.18	2.60	207	0.40
156	12.31	34.78	0.15	2.63	166	150	12.40	34.78	0.15	2.63	167	0.49
199	11.59	34.74	0.15	2.66	156	200	11.58	34.74	0.14	2.66	155	0.58
265	10.86	34.74	0.11	2.71	143	250	10.99	34.74	0.11	2.70	145	0.66
315	10.19	34.72	0.10	2.72	133	300	10.40	34.73	0.10	2.72	136	0.73
374	9.32	34.67	0.12	2.84	123	400	9.00	34.67	0.15	2.98	118	0.86
452	8.34	34.65	0.14	3.12	110	500	7.78	34.61	0.12	3.17	104	0.98
533	7.45	34.58	0.12	3.19	102	600	6.71	34.53	0.14	3.20	96	1.10
644	6.34	34.51	0.14	3.22	93	700	5.89	34.51	0.16	3.32	87	1.20
802	5.22	34.49	0.18	3.34	81	800	5.23	34.49	0.18	3.34	82	1.29
956	4.48	34.45	0.38	3.20	76	1000	4.32	34.46	0.48	3.26	74	1.47
1157	3.95	34.51	0.71	3.39	66							

H-93

HORIZON; December 13, 1955; 1724 GCT; 19°01'N, 109°40'W; sounding, 1825 fm; wind, 360°, force 3; weather, partly cloudy; sea, slight; wire angle, 09°.

0	24.58	34.30	4.97	0.50	491	0	24.58	34.30	4.97	0.50	491	0.00
24	24.38	34.36	4.90	0.48	481	10	24.55	34.31	4.94	0.49	489	0.05
50	17.12	33.81	5.28	0.68	335	20	24.46	34.34	4.92	0.48	484	0.10
74	13.25	33.53	4.28	1.24	275	30	24.13	33.36	4.88	0.53	474	0.15
84	14.28	34.16	2.33	1.95	249	50	17.12	33.81	5.28	0.68	335	0.23
94	14.09	34.41	1.45	2.27	227	75	13.26	33.54	4.27	1.25	274	0.30
99	13.64	34.52	1.20	2.44	210	100	13.60	34.53	1.18	2.46	208	0.36
152	12.04	34.66	0.33	2.77	170	150	12.06	34.66	0.34	2.76	170	0.46
205	11.40	34.72	0.11	2.74	153	200	11.48	34.71	0.12	2.75	155	0.54
265	10.27	34.72	0.14	2.88	134	250	10.56	34.74	0.15	2.79	138	0.62
312	9.69	34.63	0.14	2.96	132	300	9.79	34.65	0.14	2.93	132	0.69
371	8.96	34.55	0.12	3.05	126	400	8.64	34.54	0.15	3.03	122	0.82
446	8.09	34.52	0.17	3.04	116	500	7.45	34.48	0.12	3.17	110	0.94
525	7.20	34.47	0.12	3.20	107	600	6.46	34.47	0.15	3.23	97	1.07
628	6.19	34.47	0.15	3.25	94	700	5.75	34.47	0.17	3.28	88	1.16
786	5.28	34.48	0.18	3.36	82	800	5.22	34.48	0.18	3.38	82	1.25
942	4.57	34.55	0.27	3.48	70	1000	4.39	34.55	0.35	3.32	68	1.42
1142	3.89	34.51	0.60	2.72	66							

H-94

HORIZON; December 14, 1955; 0134 GCT; 20°00'N, 110°15'W; sounding, 2050 fm; wind, 020°, force 3; weather, cloudy; sea, smooth; wire angle, 15°.

0	24.42	34.38	5.06	0.46	481	0	24.42	34.38	5.06	0.46	481	0.00
18	24.42	34.27	4.85	0.44	489	10	24.42	34.32	4.95	0.45	485	0.05
39	24.31	34.27	4.92	0.94	485	20	24.41	34.27	4.85	0.50	488	0.10
50	18.50	34.33	3.26	1.49	330	30	24.40	34.27	4.85	0.55	488	0.15
59	16.40	34.45	1.83	2.03	272	50	18.50	34.33	3.26	1.49	330	0.23
77	13.72	34.63	0.24	2.56	203	75	14.00	34.62	0.35	2.55	210	0.30
107	12.33	34.58	0.52	2.48	181	100	12.83	34.59	0.32	2.48	189	0.34
146	11.69	34.65	0.35	2.64	164	150	11.65	34.66	0.31	2.65	163	0.43
194	11.36	34.70	0.16	2.68	154	200	11.30	34.70	0.15	2.68	153	0.51
268	10.52	34.63	0.14	2.81	145	250	10.75	34.65	0.14	2.76	148	0.60
315	9.71	34.54	0.14	2.85	138	300	10.03	34.57	0.15	2.84	142	0.67
372	9.04	34.51	0.17	2.89	131	400	8.77	34.51	0.17	2.92	126	0.81
529	7.21	34.49	0.29	3.12	106	500	7.59	34.50	0.28	3.12	110	0.94
635	6.37	34.42	0.20	3.12	100	600	6.60	34.44	0.21	3.11	102	1.06
793	5.49	34.43	0.17	3.29	89	700	5.99	34.42	0.18	3.16	96	1.16
1145	3.97	34.51	0.62	3.22	66	800	5.46	34.43	0.18	3.30	88	1.26
						1000	4.53	34.49	0.33	3.32	73	1.45

OBSERVED						COMP	INTERPOLATED					COMPUTED	
Z	T	S	O ₂	PO ₄ -P	δ _T	Z	T	S	O ₂	PO ₄ -P	δ _T	ΔD	
m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	μg at/L	10 ⁻⁵ cm/g	dyn m	

S10

EASTROPIC

HORIZON; December 14, 1955; 0918 GCT; 21°00'N, 110°38'W; sounding, 1750 fm; wind, 360°, force 3; weather, clear; sea, moderate; wire angle, 10°.

H-95

0	23.33	34.45	5.07	0.53	445	0	23.33	34.45	5.07	0.53	445	0.00
28	23.36	34.45	5.18	0.52	446	10	23.34	34.45	5.11	0.53	445	0.04
39	20.32	34.09	5.11	0.62	392	20	23.35	34.45	5.12	0.52	446	0.09
49	16.78	33.77	5.35	0.74	331	30	23.31	34.44	5.19	0.52	444	0.13
62	14.71	34.00	3.27	1.58	269	50	16.70	33.77	5.33	0.76	328	0.21
78	12.74	33.86	3.14	1.64	242	75	13.14	33.88	3.22	1.64	247	0.28
96	12.17	34.18	1.85	2.07	207	100	12.15	34.20	1.75	2.10	206	0.34
151	11.98	34.63	0.48	2.58	171	150	11.99	34.63	0.47	2.57	172	0.43
204	11.18	34.67	0.23	2.68	153	200	11.28	34.68	0.25	2.67	154	0.52
266	10.45	34.61	0.23	2.72	146	250	10.63	34.63	0.23	2.71	147	0.60
314	9.72	34.58	0.17	2.72	136	300	9.97	34.58	0.17	2.72	139	0.67
373	8.87	34.51	0.19	2.73	128	400	8.53	34.49	0.19	2.96	124	0.80
452	7.89	34.47	0.18	3.31	117	500	7.33	34.48	0.21	3.12	108	0.94
532	6.98	34.49	0.21	3.06	102	600	6.39	34.51	0.18	3.15	94	1.05
637	6.08	34.51	0.21	3.27	90	700	5.69	34.51	0.25	3.27	85	1.14
794	5.16	34.52	0.33	3.26	78	800	5.13	34.52	0.32	3.26	78	1.23
947	4.49	34.56	0.38	3.29	68	1000	4.30	34.56	0.43	3.29	66	1.40
1149	3.79	34.56	0.60	3.30	61							

HORIZON; December 14, 1955; 1727 GCT; 22°00'N, 111°09'W; sounding, 1627 fm; wind, 360°, force 3; weather, clear; sea, slight; wire angle, 07°.

H-96

0	21.50	34.29	5.09	0.54	407	0	21.50	34.29	5.09	0.54	407	0.00
33	21.44	34.29	5.33	0.51	405	10	21.49	34.29	5.20	0.53	407	0.04
43	21.22	34.25	5.24	0.66	403	20	21.47	34.29	5.30	0.52	406	0.08
53	16.89	33.73	5.37	0.52	336	30	21.45	34.29	5.32	0.51	406	0.12
63	14.97	33.92	4.62	1.46	281	50	17.20	33.75	5.25	0.52	341	0.20
73	12.85	33.60	4.09	1.40	263	75	12.73	33.72	3.00	1.45	252	0.27
97	12.46	34.16	1.70	2.26	214	100	12.44	34.16	1.69	2.26	214	0.33
146	11.30	34.36	1.23	2.40	179	150	11.25	34.37	1.17	2.41	177	0.43
195	10.70	34.48	0.77	2.60	159	200	10.65	34.49	0.74	2.63	158	0.51
268	10.01	34.57	0.41	2.84	141	250	10.16	34.56	0.48	2.81	144	0.60
316	9.38	34.57	0.33	2.85	131	300	9.62	34.58	0.34	2.85	134	0.67
373	8.69	34.54	0.28	2.88	123	400	8.44	34.54	0.25	3.02	120	0.80
450	8.06	34.52	0.21	3.26	115	500	7.51	34.49	0.18	3.21	110	0.93
532	7.10	34.47	0.14	3.18	106	600	6.42	34.44	0.22	3.19	99	1.03
638	6.13	34.45	0.23	3.22	95	700	5.71	34.47	0.20	3.29	88	1.14
799	5.14	34.49	0.21	3.31	80	800	5.13	34.49	0.20	3.30	80	1.23
952	4.48	34.49	0.42	3.09	73	1000	4.33	34.50	0.44	3.02	72	1.40
1157	3.70	34.51	0.72	2.72	64							

HORIZON; December 15, 1955; 0155 GCT; 22°56'N, 111°43'W; sounding, 1690 fm; wind, 325°, force 3; weather, clear; sea, slight; wire angle, missing.

H-97

0	22.16	34.41	5.04	0.53	416	0	22.16	34.41	5.04	0.53	416	0.00
24	22.04	34.39	5.22	0.47	414	10	22.12	34.40	5.10	0.51	415	0.04
48	21.94	34.47	5.18	0.50	406	20	22.08	34.39	5.20	0.49	415	0.08
58	21.84	34.52	5.18	0.60	400	30	22.02	34.39	5.22	0.47	414	0.12
73	17.32	33.95	5.14	0.80	330	50	21.93	34.48	5.18	0.50	404	0.21
88	14.97	33.78	4.93	0.92	291	75	16.85	33.89	5.14	0.82	323	0.30
93	14.55	33.86	4.24	1.40	276	100	14.52	33.86	4.23	1.41	276	0.37
152	11.48	34.21	1.74	2.14	193	150	11.48	34.21	1.73	2.14	193	0.49
204	10.58	34.40	1.14	2.39	163	200	10.65	34.38	1.20	2.38	165	0.59
267	9.65	34.48	0.62	2.65	142	250	9.94	34.46	0.72	2.57	148	0.67
315	9.00	34.52	0.49	2.72	129	300	9.19	34.50	0.55	2.70	133	0.74
375	8.67	34.58	0.23	2.98	120	400	8.50	34.56	0.24	2.98	118	0.87
453	7.59	34.43	0.23	2.81	116	500	7.11	34.42	0.23	2.95	109	0.99
535	6.84	34.43	0.24	3.02	105	600	6.47	34.44	0.20	3.12	100	1.11
640	6.19	34.45	0.17	3.16	96	700	5.89	34.47	0.17	3.21	91	1.21
799	5.28	34.51	0.26	3.20	81	800	5.27	34.51	0.25	3.19	81	1.30
953	4.67	34.52	0.39	3.11	73	1000	4.50	34.52	0.40	3.12	71	1.48
1156	3.90	34.53	0.56	3.20	64							

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OBSERVATIONS OF THE BUREAU OF COMMERCIAL FISHERIES, HONOLULU

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

HMS-27

HUGH M. SMITH; January 6, 1955; 1943 GCT; 22°34'N, 159°38'W; wind, 160°, force 3; weather, partly cloudy; sea, moderate; wire angle, 03°; BT slide, 1.

0	24.33	35.19	5.27	0.21	23.71	420	0	24.33	35.19	23.71	420	0.00
50	23.94	35.26	5.02	0.37	23.88	403	10	24.25	35.20	23.74	417	0.04
99	22.22	35.32	4.97	0.35	24.42	352	20	24.17	35.22	23.78	414	0.08
149	20.13	35.26	4.88	0.34	24.94	302	30	24.10	35.23	23.81	411	0.12
203	18.17	34.97	4.82	0.39	25.23	275	50	23.94	35.26	23.88	406	0.21
301	12.21	34.25	4.59	1.11	25.99	202	75	23.17	35.30	24.13	382	0.30
405	8.55	34.14	3.89	1.84	26.54	151	100	22.18	35.32	24.43	355	0.40
502	6.56	34.13	2.44	2.69	26.81	125	125	21.14	35.31	24.71	329	0.48
607	5.56	34.23	1.59	2.82	27.02	105	150	20.10	35.26	24.95	307	0.56
809	4.56	34.40	1.21	2.74	27.27	81	200	18.29	34.99	25.21	283	0.71
1003	3.76	34.51	1.44	2.98	27.44	65	250	15.35	34.60	25.61	246	0.84
1190	3.27	34.54	1.63	3.18	27.51	58	300	12.27	34.26	25.98	211	0.96
							400	8.68	34.14	26.51	160	1.14
							500	6.59	34.13	26.81	132	1.29
							600	5.60	34.22	27.01	113	1.41
							700	5.01	34.31	27.15	100	1.52
							800	4.59	34.39	27.26	90	1.61
							1000	3.77	34.51	27.44	73	1.77

HUGH M. SMITH; January 7, 1955; 2146, 2253 GCT; 23°52'N, 162°29'W; wind, 170°, force 5; weather, partly cloudy; sea, moderate; wire angle, 15°, missing; BT slide, 6.

0	23.63	35.32	5.21	0.19	24.01	391	0	23.63	35.32	24.01	391	0.00
29	23.61	35.32	5.04	0.25	24.02	390	10	23.62	35.32	24.02	391	0.04
63	23.61	35.34	5.18	0.26	24.03	389	20	23.62	35.32	24.02	391	0.08
							30	23.61	35.32	24.02	391	0.12
98	23.45	35.37	4.98	0.28	24.10	382	50	23.62	35.33	24.02	392	0.20
153	20.40	35.25	4.84	0.28	24.87	310	75	23.64	35.35	24.04	392	0.29
216	18.30	34.97	4.75	0.37	25.19	279	100	23.36	35.37	24.13	384	0.39
324	12.43	34.29	4.69	0.95	25.97	204	125	22.10	35.33	24.46	353	0.48
437	8.50	34.05	4.20	1.60	26.47	157	150	20.60	35.26	24.82	319	0.57
544	6.36	34.05	2.86	2.41	26.78	128	200	18.81	35.05	25.13	291	0.72
652	5.28	34.29	1.78	2.84	27.10	97	250	16.50	34.75	25.46	261	0.86
862	4.49	34.38	1.09	3.08	27.26	82	300	13.77	34.43	25.82	227	0.98
1087	3.53	34.45	1.26	3.04	27.42	67	400	9.57	34.09	26.33	178	1.18
1288	3.14	34.54	1.57	2.88	27.53	57	500	7.08	34.02	26.66	146	1.34
							600	5.70	34.17	26.95	118	1.48
							700	5.03	34.33	27.17	99	1.58
							800	4.64	34.38	27.25	92	1.68
							1000	3.88	34.42	27.36	81	1.85
							1200	3.31	34.50	27.48	70	2.00

HUGH M. SMITH; January 8, 1955; 1738 GCT; 23°12'N, 165°03'W; wind, 140°, force 4; weather, partly cloudy; sea, slight; wire angle, 05°; BT slide, 10.

0	23.42	35.26	4.56	0.20	24.03	389	0	23.42	35.26	24.03	389	0.00
21	23.26	35.34	5.16	0.21	24.14	379	10	23.34	35.30	24.08	385	0.04
51	23.04	35.35	5.19	0.18	24.21	372	20	23.27	35.34	24.13	380	0.08
101	21.63	35.35	5.08	0.20	24.61	335	30	23.22	35.35	24.16	378	0.11
120	20.74	35.21	5.04	0.23	24.74	321	50	23.05	35.35	24.20	374	0.19
206	17.27	34.85	4.93	0.39	25.35	263	75	22.53	35.38	24.38	359	0.28
420	10.11	34.22	4.61	1.21	26.34	169	100	21.67	35.35	24.60	339	0.37
521	6.89	34.11	2.67	2.24	26.75	129	125	20.52	35.18	24.78	322	0.45
627	5.60	34.22	1.42	2.61	27.01	106	150	19.46	35.06	24.96	305	0.53
851	4.44	34.40	1.03	2.90	27.28	80	200	17.49	34.87	25.31	273	0.67
1114	3.61	34.49	1.44	2.95	27.44	65	250	15.69	34.68	25.59	248	0.80
1341	3.14	34.54	1.65	2.73	27.53	57	300	13.97	34.52	25.84	225	0.92
							400	10.72	34.26	26.27	185	1.13
							500	7.48	34.12	26.68	145	1.29
							600	5.80	34.18	26.95	119	1.42
							700	5.08	34.29	27.12	103	1.54
							800	4.59	34.37	27.24	92	1.63
							1000	3.92	34.46	27.39	79	1.80
							1200	3.43	34.51	27.47	71	1.95

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HBL

HMS-27

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

6

HUGH M. SMITH; January 9, 1955; 1237 GCT; 22°29'N, 167°30'W; wind, 120°, force 5; weather, intermittent heavy rain; sea, slight; wire angle, 07°; BT slide, 14.

0	24.27	35.28	5.08	0.15	23.79	412	0	24.27	35.28	23.79	412	0.00
22	23.74	35.43	5.02	0.14	24.06	386	10	24.03	35.35	23.92	400	0.04
61	23.22	35.48	4.92	0.10	24.25	367	20	23.79	35.42	24.04	389	0.08
103	22.03	35.35	4.67	0.15	24.49	345	30	23.63	35.46	24.12	382	0.12
152	19.82	35.19	4.70	0.20	24.97	300	50	23.37	35.49	24.22	373	0.19
206	17.27	34.83	4.68	0.34	25.34	264	75	22.90	35.45	24.32	364	0.29
307	12.67	34.16	4.34	0.86	25.83	218	100	22.14	35.36	24.47	350	0.38
411	9.51	34.16	3.46	1.42	26.40	164	125	21.10	35.29	24.71	329	0.46
503	7.42	34.14	1.92	2.22	26.70	135	150	19.92	35.20	24.95	306	0.54
612	5.98	34.22	1.28	2.60	26.96	110	200	17.55	34.88	25.30	274	0.69
810	4.78	34.42	0.87	2.90	27.26	82	250	15.16	34.50	25.57	250	0.82
							300	12.96	34.20	25.80	228	0.94
							400	9.79	34.14	26.34	177	1.14
							500	7.48	34.14	26.70	144	1.30
							600	6.10	34.21	26.94	121	1.43
							700	5.45	34.31	27.10	106	1.54
							800	4.84	34.41	27.25	92	1.64

7

HUGH M. SMITH; January 10, 1955; 0640 GCT; 21°35'N, 170°18'W; wind, 190°, force 3; weather, partly cloudy; sea, moderate; wire angle, 02°; BT slide, 18.

0	25.00	35.19	4.89	0.23	23.51	440	0	25.00	35.19	23.51	439	0.00
18	24.54	35.26	4.84	0.22	23.70	420	10	24.74	35.23	23.61	429	0.04
49	24.52	35.28	4.82	0.17	23.72	419	20	24.54	35.26	23.70	421	0.09
94	22.68	35.32	4.86	0.20	24.29	364	30	24.53	35.28	23.71	421	0.13
147	20.87	35.19	4.38	0.31	24.69	326	50	24.49	35.28	23.73	420	0.21
198	17.96	35.01	4.30	0.42	25.31	267	75	23.57	35.31	24.02	393	0.31
293	12.33	34.14	4.44	0.92	25.88	213	100	22.50	35.31	24.33	364	0.41
393	8.72	34.14	3.55	1.69	26.51	153	125	21.67	35.26	24.53	346	0.50
490	6.84	34.20	1.77	2.75	26.83	123	150	20.72	35.18	24.73	328	0.58
590	5.58	34.27	1.13	2.75	27.05	102	200	17.83	34.99	25.33	272	0.73
787	4.59	34.47	1.07	2.89	27.32	76	250	14.76	34.52	25.68	240	0.86
975	4.26	34.52	1.34	2.90	27.40	69	300	12.01	34.12	25.93	216	0.97
1169	3.76	34.56	1.54	2.69	27.48	61	400	8.55	34.14	26.54	158	1.16
							500	6.69	34.21	26.86	127	1.30
							600	5.50	34.28	27.07	107	1.42
							700	4.86	34.39	27.23	93	1.52
							800	4.56	34.48	27.33	84	1.61
							1000	4.20	34.52	27.41	77	1.77

8

HUGH M. SMITH; January 11, 1955; 0034 GCT; 20°41'N, 172°18'W; wind, 020°, force 5; weather, intermittent moderate rain; sea, rough; wire angle, 22°; BT slide, 22.

0	24.60	35.32	4.86	0.18	23.72	419	0	24.60	35.32	23.72	418	0.00
19	24.58	35.35	4.79	0.19	23.75	416	10	24.59	35.34	23.74	417	0.04
62	24.48	35.37	4.80	0.16	23.80	411	20	24.58	35.35	23.75	416	0.08
104	24.34	35.37	4.81	0.16	23.84	407	30	24.56	35.36	23.77	415	0.12
154	20.09	35.19	4.72	0.28	24.90	306	50	24.51	35.37	23.79	414	0.21
206	17.28	34.85	4.64	0.45	25.35	263	75	24.47	35.38	23.80	414	0.31
310	11.32	34.23	4.15	1.14	26.14	189	100	24.42	35.37	23.82	413	0.42
417	8.26	34.14	2.97	2.03	26.58	146	125	22.73	35.32	24.27	371	
518	6.46	34.18	1.69	2.57	26.87	119	150	20.48	35.21	24.81	320	0.60
624	5.35	34.33	1.10	2.74	27.13	94	200	17.57	34.89	25.31	273	0.75
824	4.66	34.45	1.24	2.83	27.30	78	250	14.61	34.55	25.73	234	0.88
1028	3.93	34.54	1.63	2.68	27.45	64	300	11.84	34.28	26.08	201	0.99
1221	3.41	34.51	1.85	2.52	27.48	62	400	8.60	34.13	26.52	159	1.17
							500	6.72	34.16	26.82	131	1.31
							600	5.54	34.29	27.07	107	1.43
							700	4.98	34.39	27.22	94	1.53
							800	4.70	34.44	27.29	88	1.63
							1000	4.03	34.53	27.43	75	1.79
							1200	3.47	34.51	27.47	71	1.94

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

HMS-27

HUGH M. SMITH; January 12, 1955; 1850 GCT; 20°50'N, 177°23'W; wind, 070°, force 6; weather, partly cloudy; sea, rough; wire angle, 25°; BT slide, 32.

9

0	24.89	35.25	4.80	0.17	23.58	432	0	24.89	35.25	23.58	432	0.00
18	24.92	35.25	4.80	0.17	23.58	435	10	24.91	35.25	23.58	432	0.04
58	24.92	35.26	4.76	0.16	23.58	432	20	24.92	35.25	23.57	433	0.09
98	23.41	35.30	4.90	0.15	24.06	386	30	24.92	35.25	23.57	434	0.13
148	20.87	35.26	4.60	0.25	24.75	320	50	24.98	35.26	23.56	435	0.22
197	18.36	34.96	4.51	0.38	25.17	280	75	24.40	35.28	23.75	418	0.32
296	13.27	34.40	4.46	0.83	25.89	212	100	23.32	35.30	24.09	387	0.42
499	7.12	34.14	2.34	2.35	26.75	130	125	22.08	35.30	24.44	354	
598	5.80	34.23	1.44	2.50	26.99	108	150	20.77	35.25	24.77	324	0.60
795	4.96	34.43	1.24	2.76	27.25	83	200	18.20	34.94	25.20	285	0.76
993	4.15	34.51	1.67	2.75	27.40	69	250	15.55	34.64	25.59	248	0.89
1186	3.54	34.58	1.58	2.61	27.52	58	300	13.10	34.39	25.92	217	1.01
							400	9.47	34.16	26.40	171	1.20
							500	7.10	34.14	26.75	138	1.36
							600	5.79	34.23	26.99	115	1.49
							700	5.21	34.34	27.15	101	1.59
							800	4.94	34.43	27.25	91	1.69
							1000	4.13	34.51	27.41	77	1.86

HUGH M. SMITH; January 13, 1955; 1355 GCT; 21°52'N, 179°58'E; wind, 090°, force 5; weather, partly cloudy; sea, missing; wire angle, 25°; BT slide, 37.

10

0	24.91	35.32	4.92	0.16	23.63	428	0	24.91	35.32	23.63	427	0.00
19	24.93	35.32	4.80	0.15	23.63	428	10	24.92	35.32	23.63	428	0.04
57	24.93	35.34	4.76	0.14	23.64	426	20	24.93	35.32	23.62	429	0.09
98	24.66	35.41	4.81	0.15	23.77	414	30	24.93	35.32	23.62	429	0.13
147	21.42	35.26	4.68	0.22	24.60	335	50	24.93	35.33	23.62	430	0.21
198	18.10	34.92	4.37	0.46	25.20	278	75	24.93	35.38	23.66	427	0.32
297	12.55	34.34	4.66	0.89	25.99	202	100	24.56	35.41	23.80	415	0.43
399	8.77	34.14	3.67	1.57	26.50	154	125	23.07	35.35	24.20	378	
498	7.24	34.11	2.78	2.15	26.71	134	150	21.22	35.24	24.64	337	0.62
596	5.92	34.14	1.88	2.46	26.91	115	200	17.97	34.91	25.23	282	0.77
792	4.52	34.36	1.16	2.76	27.24	84	250	15.00	34.58	25.67	240	0.90
990	3.89	34.51	1.43	2.85	27.43	66	300	12.41	34.33	26.01	208	1.01
1181	3.38	34.56	1.67	2.64	27.52	58	400	8.75	34.14	26.50	161	1.20
							500	7.21	34.11	26.71	142	1.35
							600	5.88	34.14	26.91	122	1.49
							700	5.03	34.25	27.10	105	1.60
							800	4.49	34.37	27.25	91	1.70
							1000	3.86	34.51	27.43	74	1.87

HUGH M. SMITH; January 14, 1955; 0707 GCT; 22°31'N, 177°29'E; wind, 090°, force 5; weather, cloudy; sea, moderate; wire angle, 13°; BT slide, 41.

11

0	24.70	35.37	4.83	0.17	23.73	418	0	24.70	35.37	23.73	418	0.00
39	24.70	35.37	4.85	0.16	23.73	418	10	24.70	35.37	23.73	418	0.04
77	24.43	35.46	4.81	0.12	23.88	403	20	24.70	35.37	23.73	418	0.08
115	22.86	35.08r	4.91	0.16	24.05r	386r	30	24.70	35.37	23.73	419	0.13
154	20.86	35.25	4.64	0.25	24.74	322	50	24.70	35.42	23.77	416	0.21
197	18.93	35.34r	4.74	0.29	25.32r	266r	75	24.46	35.46	23.87	407	0.31
294	14.60	34.54	4.87	0.61	25.72	228	100	23.58	35.45	24.12	384	0.41
396	11.04	34.27	4.44	1.14	26.22	181	125	22.35	35.36	24.41		
491	8.43	34.13	3.58	1.83	26.55	150	150	21.07	35.26	24.69	332	0.59
592	6.48	34.11	2.46	2.31	26.81	125	200	18.79	35.00	25.09	295	0.75
788	4.52	34.31	1.05	2.88	27.20	88	250	16.51	34.77	25.46	260	0.89
981	4.06	34.47	1.34	2.93	27.38	71	300	14.37	34.51	25.75	233	1.01
1172	3.48	34.56	1.62	2.65	27.51	58	400	10.92	34.26	26.24	188	1.22
							500	8.23	34.12	26.57	156	1.40
							600	6.36	34.12	26.83	131	1.54
							700	5.16	34.20	27.05	110	1.66
							800	4.47	34.32	27.22	94	1.77
							1000	4.00	34.48	27.39	78	1.94

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HBL

HMS-27

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

12

HUGH M. SMITH; January 15, 1955; 0051 GCT; 23°18'N, 174°46'E; wind, 080°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°; BT slide, 45.

0	23.91	35.50	4.92	0.10	24.07	385	0	23.91	35.50	24.07	386	0.00
21	23.75	35.48	4.89	0.07	24.10	382	10	23.83	35.49	24.08	384	0.04
61	23.68	35.50	4.85	0.07	24.13	380	20	23.76	35.48	24.10	384	0.08
101	21.74	35.25	5.06	0.11	24.50	344	30	23.75	35.49	24.11	383	0.12
152	18.34	34.90	5.01	0.23	25.13	284	50	23.72	35.50	24.12	382	0.19
205	16.40	34.69	4.88	0.40	25.44	255	75	23.14	35.43	24.24	372	0.29
306	13.98	34.49	4.90	0.65	25.82	220	100	21.80	35.26	24.49	349	0.38
411	10.70	34.23	4.57	1.10	26.25	178	125	20.11	35.08	24.81	319	
511	8.08	34.11	3.40	1.87	26.58	146	150	18.47	34.91	25.11	292	0.54
612	6.41	34.09	2.76	2.16	26.80	127	200	16.54	34.70	25.42	263	0.68
820	4.57	34.33	1.09	2.80	27.21	87	250	15.26	34.59	25.62	246	0.80
1018	3.82	34.49	1.26	2.89	27.42	67	300	14.11	34.50	25.80	229	0.92
1220	3.40	34.54	1.63	2.60	27.50	59	400	11.05	34.26	26.21	191	1.14
							500	8.33	34.12	26.55	158	1.31
							600	6.57	34.09	26.78	136	1.46
							700	5.43	34.17	26.99	116	1.59
							800	4.68	34.30	27.18	98	1.69
							1000	3.86	34.48	27.41	77	1.87
							1200	3.44	34.54	27.49	69	2.02

14

HUGH M. SMITH; January 15, 1955; 1720 GCT; 23°57'N, 172°36'E; wind, 060°, force 7; weather, intermittent slight rain; sea, very rough; wire angle, 28°; BT slide, 49.

0	24.84	35.41	5.14	0.20	23.72	419	0	24.84	35.41	23.72	419	0.00
39	24.82	35.41	4.80	0.14	23.73	419	10	24.83	35.41	23.72	419	0.04
77	24.77	35.44	4.79	0.11	23.76	415	20	24.83	35.41	23.72	419	0.08
110	22.68	35.39	5.01	0.12	24.34	360	30	24.82	35.41	23.72	419	0.13
148	21.15	35.35	4.71	0.20	24.74	322	50	24.81	35.42	23.73	419	0.21
187	19.95	35.21	4.65	0.32	24.95	301	75	24.80	35.44	23.75	418	0.31
281	16.34	34.69	4.89	0.41	25.45	254	100	23.38	35.41	24.15	381	0.41
475	10.88	34.25	4.43	1.16	26.23	180	125	22.00	35.38	24.53	346	
567	8.40	34.13	3.62	1.64	26.55	149	150	21.09	35.34	24.75	326	0.59
762	5.12	34.18	1.48	2.52	27.03	104	200	19.46	35.14	25.03	301	0.75
945	4.25	34.38	1.23	2.70	27.29	79	250	17.55	34.86	25.30	276	0.89
1135	3.66	34.52	1.47	2.72	27.46	63	300	15.74	34.62	25.54	255	1.03
							400	12.81	34.35	25.95	216	1.27
							500	10.17	34.21	26.33	181	1.47
							600	7.67	34.12	26.65	150	1.63
							700	5.89	34.13	26.90	125	1.77
							800	4.84	34.22	27.10	106	1.89
							1000	4.08	34.42	27.34	84	2.08

16

HUGH M. SMITH; January 16, 1955; 1519 GCT; 25°00'N, 169°30'E; wind, 080°, force 5; weather, partly cloudy; sea, moderate; wire angle, 22°; BT slide, 54.

0	22.51	35.23	5.06	0.11	24.27	366	0	22.51	35.23	24.27	366	0.00
42	22.52	35.21	5.06	0.13	24.25	368	10	22.51	35.22	24.26	367	0.04
84	21.84	35.12	5.13	0.14	24.37	356	20	22.51	35.22	24.26	368	0.07
121	18.04	34.88	5.02	0.29	25.19	279	30	22.52	35.22	24.26	369	0.11
161	16.85	34.76	5.01	0.39	25.38	260	50	22.52	35.20	24.24	371	0.18
203	16.29	34.70	5.12	0.47	25.47	252	75	22.18	35.15	24.30	366	0.28
305	14.94	34.60	4.76	0.63	25.70	230	100	20.22	35.02	24.74	325	0.36
412	11.81	34.34	4.63	1.10	26.13	189	125	17.84	34.86	25.23	279	
514	9.00	34.18	4.29	1.61	26.50	154	150	16.99	34.78	25.37	266	0.51
615	6.78	34.11	3.15	2.15	26.77	128	200	16.32	34.70	25.46	259	0.64
817	4.48	34.25	1.25	2.89	27.16	92	250	15.77	34.66	25.56	251	0.77
1015	3.45	34.40	0.87	3.12	27.39	70	300	15.02	34.61	25.68	240	0.90
1210	3.03	34.52	1.22	3.03	27.52	58	400	12.20	34.37	26.08	204	1.12
							500	9.36	34.20	26.45	168	1.31
							600	7.07	34.12	26.73	141	1.46
							700	5.56	34.14	26.95	119	1.59
							800	4.59	34.23	27.13	102	1.70
							1000	3.50	34.39	27.37	79	1.89
							1200	3.05	34.51	27.51	66	2.03

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

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HUGH M. SMITH; January 17, 1955; 0345 GCT; 26°30'N, 169°35'E; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°; BT slide, 57.

17

0	21.64	35.37	5.10	0.12	24.62	333	0	21.64	35.37	24.62	333	0.00
41	21.48	35.37	5.09	0.11	24.66	328	10	21.60	35.37	24.63	332	0.03
80	21.51	35.37	5.12	0.13	24.65	330	20	21.56	35.37	24.64	332	0.07
121	18.24	34.90	5.02	0.28	25.15	282	30	21.52	35.37	24.65	331	0.10
161	16.78	34.76	5.06	0.34	25.40	259	50	21.49	35.39	24.67	330	0.17
205	15.94	34.69	5.04	0.48	25.54	245	75	21.50	35.38	24.66	331	0.25
306	14.26	34.52	4.84	0.70	25.78	222	100	20.01	35.15	24.89	310	0.33
413	12.04	34.38	4.82	1.03	26.12	190	125	18.04	34.88	25.19	283	
512	9.47	34.20	4.34	1.52	26.44	160	150	17.06	34.78	25.35	268	0.47
616	6.96	34.07	3.86	2.01	26.71	134	200	16.01	34.70	25.53	252	0.60
820	4.66	34.18	1.52	2.86	27.09	99	250	15.20	34.61	25.65	242	0.73
1016	3.59	34.38	0.85	3.19	27.36	73	300	14.36	34.53	25.77	232	0.85
1212	3.04	34.42	0.94	3.11	27.44	65	400	12.34	34.40	26.08	204	1.07
							500	9.79	34.22	26.40	174	1.26
							600	7.31	34.08	26.68	147	1.42
							700	5.73	34.08	26.88	126	1.56
							800	4.78	34.16	27.05	110	1.68
							1000	3.65	34.36	27.34	82	1.87
							1200	3.07	34.42	27.44	73	2.03

HUGH M. SMITH; January 17, 1955; 1558 GCT; 27°56'N, 169°50'E; wind, 150°, force 3; weather, clear; sea, moderate; wire angle, 14°; BT slide, 60.

19

0	21.33	35.37	5.09	0.14	24.70	325	0	21.33	35.37	24.70	325	0.00
39	21.35	35.34	5.14	0.13	24.68	328	10	21.34	35.36	24.70	326	0.03
78	20.78	35.35	5.30	0.13	24.84	313	20	21.34	35.36	24.69	327	0.07
117	19.20	34.97	5.09	0.23	24.97	300	30	21.35	35.35	24.68	328	0.10
201	16.05	34.69	5.07	0.49	25.52	247	50	21.27	35.36	24.71	326	0.16
299	14.56	34.54	4.88	0.65	25.73	227	75	20.85	35.36	24.82	316	0.24
401	12.18	34.34	4.76	0.94	26.06	195	100	19.95	35.15	24.91	309	0.32
499	9.60	34.22	4.46	1.45	26.43	161	125	18.86	34.92	25.02	299	0.40
601	7.30	34.09	3.47	1.97	26.68	137	150	17.84	34.81	25.18	284	0.47
801	4.90	34.16	1.78	2.68	27.04	103	200	16.08	34.69	25.51	254	0.61
999	3.83	34.29	0.91	3.04	27.26	82	250	15.21	34.61	25.64	243	0.73
1195	3.14	34.42	0.90	3.02	27.43	66	300	14.54	34.54	25.73	235	0.85
							400	12.21	34.34	26.06	206	1.07
							500	9.57	34.22	26.43	170	1.26
							600	7.32	34.09	26.68	146	1.42
							700	5.85	34.09	26.88	127	1.55
							800	4.91	34.16	27.04	111	1.67
							1000	3.83	34.29	27.26	90	1.87

HUGH M. SMITH; January 18, 1955; 0610 GCT; 29°33'N, 169°57'E; wind, 250°, force 4; weather, partly cloudy; sea, moderate; wire angle, 30°; BT slide, 63.

20

0	21.70	35.17	5.08	0.11	24.45	349	0	21.70	35.17	24.45	349	0.00
32	21.58	35.16	5.05	0.13	24.48	347	10	21.66	35.17	24.46	349	0.03
97	19.56	34.88	4.97	0.20	24.80	316	20	21.62	35.16	24.47	348	0.07
129	19.11	34.85	4.76	0.31	24.90	308	30	21.59	35.16	24.47	348	0.10
166	17.01	34.69	4.79	0.44	25.29	269	50	21.07	35.08	24.56	340	0.17
247	15.79	34.60	4.91	0.48	25.51	248	75	20.29	34.98	24.69	329	0.26
333	14.34	34.51	4.79	0.69	25.76	225	100	19.54	34.88	24.81	318	0.34
416	12.91	34.36	4.83	0.90	25.93	208	125	19.19	34.86	24.88	312	0.42
502	10.66	34.22	4.63	1.23	26.25	178	150	17.96	34.76	25.12	290	0.49
675	6.16	34.02	3.44	2.22	26.78	128	200	16.22	34.63	25.43	262	0.63
851	4.30	34.14	1.49	2.97	27.09	98	250	15.74	34.60	25.52	255	0.76
1038	3.50	34.29	0.80	3.05	27.29	79	300	14.91	34.55	25.66	242	0.88
							400	13.22	34.39	25.90	222	1.12
							500	10.72	34.22	26.24	190	1.32
							600	7.95	34.08	26.58	156	1.49
							700	5.78	34.03	26.83	131	1.64
							800	4.64	34.09	27.01	113	1.76
							1000	3.66	34.26	27.25	90	1.96

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HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

22

HUGH M. SMITH; January 18, 1955; 1828 GCT; 31°07'N, 170°35'E; wind, 270°, force 5; weather, partly cloudy; sea, moderate; wire angle, 31°; BT slide, 66.

0	19.86	34.85	5.19	0.14	24.70	320	0	19.86	34.85	24.70	325	0.00
36	19.86	34.83	5.24	0.14	24.69	321	10	19.86	34.84	24.70	326	0.03
73	19.40	34.78	5.19	0.15	24.77	319	20	19.86	34.84	24.70	326	0.07
104	18.18	34.76	5.06	0.26	25.06	290	30	19.86	34.83	24.69	327	0.10
141	16.74	34.70	4.94	0.38	25.36	262	50	19.78	34.81	24.70	327	0.16
178	16.28	34.72	4.96	0.45	25.49	250	75	19.33	34.78	24.79	320	0.24
269	15.14	34.60	4.72	0.63	25.65	235	100	18.36	34.76	25.02	298	0.32
364	13.25	34.45	4.87	0.84	25.94	207	125	17.30	34.72	25.25	277	0.39
454	11.30	34.33	4.63	1.16	26.22	181	150	16.58	34.70	25.40	263	0.46
546	8.62	34.14	4.52	1.56	26.53	152	200	16.04	34.70	25.53	252	0.59
726	5.04	34.02	2.90	2.49	26.92	114	250	15.41	34.64	25.62	245	0.71
911	3.93	34.22	1.20	2.96	27.20	88	300	14.57	34.55	25.74	235	0.83
1093	3.25	34.40	0.76	2.97	27.41	69	400	12.52	34.40	26.05	207	1.06
							500	9.97	34.23	26.38	176	1.25
							600	7.30	34.07	26.67	148	1.41
							700	5.41	34.02	26.87	127	1.55
							800	4.41	34.08	27.03	111	1.66
							1000	3.60	34.31	27.30	86	1.86

24

HUGH M. SMITH; February 2, 1955; 0425 GCT; 29°33'N, 179°20'E; wind, 220°, force 5; weather, continuous moderate rain; sea, moderate; wire angle, 13°; BT slide, 91.

0	19.02	34.92	5.67	0.18	24.97	300	0	19.02	34.92	24.97	299	0.00
39	19.04	34.88	5.37	0.15	24.94	302	10	19.03	34.91	24.96	300	0.03
77	19.06	34.85	5.30	0.16	24.91	305	20	19.03	34.90	24.96	302	0.06
116	18.58	34.78	5.22	0.21	24.98	299	30	19.04	34.89	24.95	303	0.09
154	17.78	34.69	5.02	0.43	25.11	286	50	19.05	34.87	24.93	306	0.15
198	15.07	34.51	5.02	0.58	25.60	240	75	19.06	34.85	24.91	308	0.23
295	13.38	34.51	4.92	0.79	25.96	206	100	18.83	34.81	24.94	306	0.30
397	11.39	34.25	4.88	1.07	26.14	187	125	18.47	34.76	24.99	302	0.38
494	8.62	34.11	4.64	1.57	26.50	154	150	17.91	34.70	25.09	293	0.45
594	6.32	33.93	3.88	2.04	26.69	136	200	15.01	34.51	25.61	244	0.59
792	4.36	34.14	1.63	2.81	27.09	98	250	13.81	34.49	25.85	222	0.71
984	3.57	34.33	0.72	3.16	27.32	76	300	13.30	34.50	25.96	213	0.81
1181	3.16	34.34	0.65	3.08	27.37	73	400	11.31	34.24	26.15	196	1.02
							500	8.46	34.10	26.52	161	1.20
							600	6.23	33.93	26.70	143	1.35
							700	4.98	34.00	26.90	123	1.48
							800	4.31	34.15	27.10	105	1.60
							1000	3.54	34.33	27.32	84	1.79

26

HUGH M. SMITH; February 2, 1955; 1835 GCT; 31°10'N, 179°52'E; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 05°; BT slide, 94.

0	18.80	34.90	5.29	0.14	25.01	296	0	18.80	34.90	25.01	295	0.00
41	18.80	34.90	5.34	0.14	25.01	296	10	18.80	34.90	25.01	296	0.03
121	16.96	34.74	5.02	0.36	25.34	264	20	18.80	34.90	25.01	296	0.06
161	16.24	34.69	4.91	0.47	25.47	252	30	18.80	34.90	25.01	296	0.09
207	15.62	34.70	4.90	0.55	25.62	238	50	18.64	34.88	25.04	294	0.15
307	13.92	34.52	5.04	0.62	25.85	216	75	18.13	34.84	25.14	286	0.22
413	12.18	34.40	5.10	0.86	26.11	191	100	17.53	34.79	25.24	277	0.29
512	10.14	34.25	4.82	1.20	26.36	167	125	16.88	34.73	25.36	267	0.36
619	7.44	34.07	4.21	1.76	26.65	141	150	16.42	34.70	25.44	260	0.42
824	4.50	34.07	1.83	2.72	27.02	105	200	15.71	34.70	25.60	246	0.55
1021	3.67	34.16	1.27	2.90	27.17	91	250	14.92	34.64	25.73	235	0.67
1225	3.12	34.34	0.64	3.00	27.37	72	300	14.05	34.54	25.84	225	0.79
							400	12.40	34.41	26.08	204	1.00
							500	10.41	34.27	26.33	181	1.19
							600	7.91	34.10	26.60	155	1.36
							700	5.98	34.04	26.82	133	1.50
							800	4.71	34.06	26.98	116	1.63
							1000	3.70	34.15	27.16	99	1.85
							1200	3.19	34.32	27.35	82	2.03

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

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HUGH M. SMITH; February 3, 1955; 0505 GCT; 32°32'N, 179°56'W; wind, 290°, force 5; weather, cloudy; sea, rough; wire angle, 40°; BT slide, 97.

27

0	18.47	34.94	5.45	0.14	25.13	284	0	18.47	34.94	25.13	284	0.00
33	18.49	34.94	5.41	0.15	25.12	285	10	18.48	34.94	25.13	285	0.03
65	18.52	34.92	5.35	0.13	25.10	287	20	18.48	34.94	25.13	285	0.06
94	18.48	34.92	5.34	0.14	25.11	286	30	18.49	34.94	25.12	286	0.09
126	18.18	34.92	5.25	0.23	25.19	279	50	18.51	34.93	25.11	288	0.14
158	16.41	34.65	4.92	0.46	25.40	259	75	18.52	34.92	25.10	290	0.22
237	15.38	34.58	4.94	0.49	25.58	240	100	18.49	34.93	25.12	289	0.29
319	14.00	34.52	4.78	0.74	25.84	218	125	18.20	34.92	25.18	284	0.36
398	12.46	34.38	4.90	0.91	26.04	198	150	16.88	34.72	25.35	268	0.43
476	10.28	34.23	4.71	1.22	26.32	171	200	15.58	34.56	25.52	253	0.56
630	6.68	33.98	4.33	1.86	26.68	137	250	15.18	34.57	25.62	245	0.68
786	4.69	34.04	2.28	2.64	26.97	110	300	14.34	34.54	25.78	231	0.80
933	3.87	34.20	1.02	2.93	27.19	90	400	12.41	34.38	26.05	207	1.02
							500	9.63	34.18	26.39	174	1.21
							600	7.28	34.01	26.63	151	1.37
							700	5.61	33.98	26.82	132	1.52
							800	4.61	34.06	26.99	115	1.64

HUGH M. SMITH; February 4, 1955; 2115 GCT; 36°43'N, 179°30'E; wind, 060°, force 5; weather, partly cloudy; sea, very rough; wire angle, 10°; BT slide, 105.

29

0	15.03	34.56	5.73	0.31	25.65	243	0	15.03	34.56	25.65	235	0.00
45	15.00	34.54	5.72	0.31	25.64	236	10	15.02	34.56	25.64	236	0.02
90	14.13	34.49	5.23	0.54	25.78	222	20	15.02	34.55	25.64	236	0.05
130	13.50	34.42	5.26	0.57	25.86	215	30	15.01	34.55	25.64	237	0.07
174	12.60	34.42	5.20	0.74	26.04	198	50	14.92	34.54	25.65	236	0.12
219	12.10	34.36	4.82	0.90	26.09	193	75	14.46	34.51	25.73	229	0.18
330	10.09	34.22	4.36	1.13	26.35	168	100	13.97	34.47	25.80	223	0.23
445	7.95	34.07	4.67	1.46	26.57	148	125	13.58	34.43	25.85	219	0.29
555	5.68	33.93	3.85	1.98	26.77	128	150	13.08	34.42	25.95	211	0.34
664	4.66	34.02	1.86	2.37	26.96	110	200	12.30	34.39	26.08	199	0.44
877	3.84	34.22	1.30	2.71	27.20	88	250	11.60	34.32	26.16	193	0.54
1091	3.19	34.34	0.76	2.93	27.36	73	300	10.69	34.26	26.27	182	0.64
1293	2.81	34.42	0.72	2.86	27.46	63	400	8.81	34.13	26.49	163	0.81
							500	6.75	33.98	26.68	145	0.96
							600	5.16	33.95	26.85	128	1.10
							700	4.46	34.06	27.01	112	1.22
							800	4.04	34.15	27.13	101	1.32
							1000	3.44	34.30	27.30	85	1.51
							1200	2.98	34.38	27.42	75	1.67

HUGH M. SMITH; February 5, 1955; 1441 GCT; 37°13'N, 177°36'W; wind, 050°, force 4; weather, partly cloudy; sea, very rough; wire angle, 00°; BT slide, 108.

30

0	14.87	34.58	5.71	0.27	25.70	230	0	14.87	34.58	25.70	230	0.00
40	14.87	34.60	5.65	0.26	25.71	229	10	14.87	34.58	25.70	230	0.02
79	14.55	34.52	5.65	0.31	25.72	228	20	14.87	34.59	25.70	230	0.05
119	14.28	34.51	5.67	0.31	25.77	223	30	14.87	34.60	25.71	230	0.07
158	14.02	34.51	5.75	0.34	25.82	219	50	14.80	34.58	25.71	230	0.12
203	13.74	34.47	5.82	0.40	25.85	216	75	14.59	34.53	25.72	231	0.17
301	12.68	34.42	5.14	0.67	26.03	199	100	14.40	34.51	25.74	229	0.23
404	11.00	34.31	5.17	0.88	26.26	177	125	14.24	34.51	25.78	226	0.29
503	9.46	34.22	5.22	1.10	26.45	159	150	14.07	34.51	25.81	224	0.34
605	7.54	34.09	4.40	1.51	26.65	140	200	13.76	34.47	25.85	221	0.45
807	4.84	34.00	2.40	2.35	26.92	114	250	13.30	34.45	25.92	216	0.56
							300	12.69	34.42	26.02	207	0.67
							400	11.07	34.32	26.25	187	0.87
							500	9.51	34.22	26.45	169	1.04
							600	7.63	34.10	26.64	151	1.20
							700	6.27	34.05	26.79	136	1.35
							800	4.93	34.00	26.92	123	1.48

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HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

31 HUGH M. SMITH; February 6, 1955; 0513 GCT; 37°00'N, 175°30'W; wind, 120°, force 4; weather, partly cloudy; sea, rough; wire angle, 35°; BT slide, 111.

0	14.88	34.58	5.66	0.36	25.69	231	0	14.88	34.58	25.69	231	0.00
29	14.90	34.60	5.66	0.30	25.70	229	10	14.89	34.59	25.70	231	0.02
59	14.92	34.58	5.65	0.35	25.68	231	20	14.89	34.59	25.70	231	0.05
89	14.90	34.58	5.66	0.35	25.69	231	30	14.90	34.60	25.70	231	0.07
119	14.85	34.60	5.63	0.33	25.72	228	50	14.92	34.59	25.69	232	0.12
153	14.88	34.58	5.65	0.42	25.69	231	75	14.91	34.58	25.68	234	0.17
229	13.60	34.47	5.12	0.58	25.88	213	100	14.88	34.59	25.70	233	0.23
308	12.43	34.40	5.22	0.77	26.06	196	125	14.87	34.60	25.71	233	0.29
383	11.14	34.33	5.32	0.90	26.25	178	150	14.88	34.58	25.69	235	0.35
466	9.66	34.18	5.25	1.11	26.39	164	200	14.19	34.52	25.79	227	0.46
623	6.44	34.00	4.02	1.88	26.73	132	250	13.29	34.45	25.93	215	0.57
780	4.58	34.09	2.04	2.56	27.02	105	300	12.55	34.41	26.04	205	0.68
948	3.90	34.23	1.14	2.81	27.21	87	400	10.85	34.30	26.28	184	0.87
							500	8.93	34.12	26.46	167	1.05
							600	6.89	34.01	26.68	146	1.21
							700	5.37	34.02	26.88	126	1.34
							800	4.50	34.11	27.05	110	1.46

33 HUGH M. SMITH; February 6, 1955; 2035 GCT; 36°49'N, 173°18'W; wind, 080°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°; BT slide, 114.

0	11.91	34.33	6.09a)	0.54	26.11	191	0	11.91	34.33	26.11	192	0.00
53	11.90	34.31	6.07	0.54	26.09	193	10	11.91	34.33	26.10	192	0.02
106	11.86	34.33	6.03	0.55	26.11	191	20	11.91	34.32	26.10	192	0.04
158	11.80	34.31	5.88	0.58	26.11	191	30	11.90	34.32	26.10	193	0.06
211	10.37	34.27	5.07	0.97	26.34	169	50	11.90	34.31	26.09	194	0.10
263	9.48	34.20	5.30	1.10	26.43	161	75	11.89	34.32	26.10	194	0.14
316	8.50	34.09	5.23	1.30	26.50	154	100	11.87	34.33	26.11	193	0.19
426	6.68	34.02	4.21	1.68	26.71	134	125	11.86	34.33	26.10		
532	5.40	33.98	3.23	2.11	26.84	122	150	11.85	34.32	26.10	195	0.29
636	4.47	34.09	2.04	2.45	27.04	103	200	10.70	34.28	26.29	179	0.38
842	3.68	34.25	0.96	2.72	27.24	84	250	9.68	34.22	26.42	167	0.47
1048	3.05	34.36	0.59	2.88	27.39	70	300	8.80	34.12	26.48	161	0.55
1242	2.74	34.45	0.55	2.91	27.49	60	400	7.07	34.03	26.66	145	0.71
							500	5.74	33.98	26.80	132	0.85
							600	4.75	34.04	26.97	116	0.97
							700	4.14	34.15	27.12	102	1.08
							800	3.78	34.22	27.21	93	1.18
							1000	3.18	34.34	27.36	79	1.35
							1200	2.81	34.43	27.47	69	1.50

34 HUGH M. SMITH; February 7, 1955; 0738 GCT; 35°17'N, 173°27'W; wind, 140°, force 5; weather, cloudy; sea, rough; wire angle, 22°; BT slide, 117.

0	14.21	34.47	5.89	0.31	25.75	225	0	14.21	34.47	25.75	225	0.00
51	14.22	34.49	5.86	0.32	25.77	223	10	14.21	34.47	25.76	225	0.02
102	13.63	34.40	5.69	0.45	25.82	219	20	14.21	34.48	25.76	225	0.04
152	13.10	34.40	5.39	0.60	25.93	208	30	14.22	34.48	25.76	225	0.07
203	12.34	34.38	5.32	0.72	26.06	196	50	14.22	34.49	25.77	225	0.11
252	11.65	34.33	5.22	0.88	26.15	187	75	13.98	34.45	25.79	224	0.17
305	10.78	34.29	5.28	0.94	26.28	175	100	13.66	34.40	25.82	222	0.22
514	7.50	34.04	4.69	1.55	26.61	144	125	13.40	34.40	25.86	218	0.28
616	5.68	33.98	3.50	2.06	26.81	125	150	13.12	34.40	25.92	213	0.33
815	4.29	34.18	1.64	2.63	27.13	94	200	12.39	34.38	26.05	201	0.44
1017	3.43	34.33	0.81	2.85	27.33	75	250	11.68	34.33	26.15	193	0.54
1209	3.04	34.40	0.37	2.96	27.42	66	300	10.86	34.29	26.27	183	0.63
							400	9.31	34.18	26.44	167	0.80
							500	7.73	34.06	26.59	153	0.96
							600	5.95	33.98	26.78	135	1.11
							700	4.89	34.04	26.95	119	1.24
							800	4.34	34.16	27.10	104	1.35
							1000	3.48	34.32	27.32	84	1.54
							1200	3.06	34.40	27.42	75	1.69

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a) Estimated burette reading.

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

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HUGH M. SMITH; February 7, 1955; 1829 GCT; 34°06'N, 173°12'W; wind, 180°, force 5; weather, cloudy; sea, moderate; wire angle, 10°; BT slide, 120.

36

0	14.65	34.47	5.71	0.30	25.66	234	0	14.65	34.47	25.66	234	0.00
54	14.68	34.47	5.71	0.30	25.65	235	10	14.66	34.47	25.66	234	0.02
161	14.64	34.47	5.39	0.47	25.66	234	20	14.66	34.47	25.66	235	0.05
215	13.50	34.36	5.20	0.69	25.82	220	30	14.67	34.47	25.65	235	0.07
268	12.24	34.42	5.16	0.84	26.11	191	50	14.68	34.47	25.65	236	0.12
322	11.04	34.27	5.09	0.99	26.22	181	75	14.79	34.48	25.64	238	0.18
435	8.54	34.09	4.97	1.38	26.50	154	100	14.85	34.49	25.63	240	0.24
543	6.24	34.02	3.71	1.97	26.77	128	125	14.83	34.49	25.63	240	0.30
651	4.98	34.04	2.56	2.33	26.94	112	150	14.72	34.48	25.65	239	0.36
861	3.65	34.25	0.90	2.80	27.25	83	200	13.86	34.39	25.76	230	0.47
1072	3.18	34.40	0.69	2.90	27.41	68	250	12.67	34.40	26.01	207	0.58
1271	2.95	34.42	0.61	2.91	27.45	64	300	11.52	34.34	26.19	191	0.68
							400	9.31	34.13	26.41	171	0.86
							500	7.09	34.04	26.67	146	1.02
							600	5.49	34.02	26.86	126	1.16
							700	4.57	34.08	27.02	112	1.28
							800	3.92	34.18	27.17	98	1.38
							1000	3.28	34.36	27.37	79	1.56
							1200	3.03	34.41	27.44	73	1.71

HUGH M. SMITH; February 8, 1955; 0917 GCT; 32°27'N, 173°02'W; wind, 190°, force 4; weather, cloudy; sea, rough; wire angle, 05°; BT slide, 123.

38

0	16.30	34.65	5.62	0.27	25.43	256	0	16.30	34.65	25.43	256	0.00
51	16.30	34.63	5.55	0.25	25.41	258	10	16.30	34.65	25.43	256	0.03
100	16.28	34.61	5.51	0.27	25.40	259	20	16.30	34.64	25.42	257	0.05
151	15.65	34.58	5.30	0.40	25.52	247	30	16.30	34.64	25.42	258	0.08
204	14.68	34.49	5.51	0.41	25.67	233	50	16.30	34.63	25.41	259	0.13
257	14.06	34.47	5.12	0.65	25.78	222	75	16.29	34.62	25.41	261	0.19
306	13.25	34.43	5.11	0.74	25.92	209	100	16.28	34.61	25.40	262	0.26
413	11.08	34.29	5.03	1.04	26.23	180	125	16.03	34.60	25.45	258	
512	9.10	34.11	4.75	1.39	26.43	161	150	15.67	34.58	25.52	252	0.39
619	7.18	33.98	4.38	1.75	26.61	144	200	14.75	34.50	25.66	240	0.51
824	4.16	34.14	1.48	2.81	27.11	96	250	14.14	34.47	25.77	230	0.63
1023	3.49	34.29	0.71	3.07	27.29	79	300	13.36	34.44	25.90	219	0.74
1226	3.05	34.45	0.47	3.09	27.46	63	400	11.36	34.31	26.19	192	0.95
							500	9.33	34.13	26.41	173	1.13
							600	7.50	34.00	26.58	156	1.30
							700	5.79	34.01	26.82	132	1.44
							800	4.43	34.11	27.05	109	1.57
							1000	3.50	34.27	27.28	88	1.76
							1200	3.11	34.43	27.44	73	1.93

HUGH M. SMITH; February 8, 1955; 2058 GCT; 30°59'N, 172°57'W; wind, 140°, force 2; weather, cloudy; sea, slight; wire angle, 00°; BT slide, 126.

39

0	18.45	35.07	5.33	0.17	25.23	275	0	18.45	35.07	25.23	275	0.00
20	18.45	35.05	5.33	0.17	25.22	276	10	18.45	35.06	25.22	276	0.03
40	18.46	35.03	5.32	0.16	25.20	278	20	18.45	35.05	25.22	277	0.06
79	18.36	35.01	5.33	0.17	25.21	277	30	18.46	35.04	25.21	278	0.08
119	16.30	34.63	5.22	0.37	25.41	258	50	18.46	35.04	25.21	278	0.14
203	14.46	34.51	4.76	0.69	25.73	227	75	18.39	35.02	25.20	280	0.21
301	12.16	34.34	5.11	0.82	26.07	195	100	17.35	34.82	25.31	270	0.28
404	10.44	34.22	5.03	1.13	26.29	174	125	16.11	34.61	25.44	259	
499	8.28	34.05	4.74	1.53	26.51	153	150	15.43	34.53	25.54	250	0.41
607	6.16	33.98	3.46	2.14	26.75	130	200	14.50	34.51	25.72	234	0.53
807	4.28	34.13	1.41	2.89	27.09	98	250	13.33	34.43	25.90	217	0.64
1001	3.46	34.25	0.52	3.18	27.27	81	300	12.18	34.34	26.06	203	0.75
1200	3.04	34.40	0.43	3.23	27.42	67	400	10.51	34.22	26.28	184	0.94
							500	8.26	34.05	26.51	162	1.12
							600	6.28	33.98	26.73	140	1.27
							700	5.06	34.03	26.92	122	1.40
							800	4.31	34.12	27.08	107	1.52
							1000	3.46	34.25	27.27	89	1.71
							1200	3.04	34.40	27.42	74	1.88

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HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

41

HUGH M. SMITH; February 9, 1955; 0923 GCT; 29°29'N, 172°41'W; wind, 080°, force 3; weather, partly cloudy; sea, slight; wire angle, 10°; BT slide, 129.

0	17.70	34.88	5.57	0.22	25.27	271	0	17.70	34.88	25.27	271	0.00
50	16.82	34.60	5.60	0.21	25.27	271	10	17.52	34.82	25.27	271	0.03
100	16.39	34.60	5.50	0.29	25.37	262	20	17.35	34.77	25.27	271	0.05
150	15.41	34.58	5.12	0.48	25.58	242	30	17.17	34.71	25.27	272	0.08
204	14.36	34.47	5.00	0.64	25.72	228	50	16.82	34.60	25.27	273	0.14
253	13.44	34.42	5.17	0.72	25.87	214	75	16.61	34.58	25.31	270	0.20
304	12.46	34.34	5.15	0.78	26.01	201	100	16.39	34.60	25.37	265	0.27
409	10.29	34.20	4.81	1.17	26.30	173	125	15.93	34.60	25.47	256	0.34
509	8.50	34.07	4.40	1.57	26.49	155	150	15.41	34.58	25.58	246	0.40
612	6.18	34.04	3.40	2.19	26.79	126	200	14.44	34.48	25.71	235	0.52
818	4.16	34.16	1.18	2.98	27.12	95	250	13.50	34.42	25.86	221	0.63
1015	3.50	34.33	0.59	3.22	27.33	75	300	12.54	34.35	26.00	209	0.74
1217	3.04	34.47	0.86	3.13	27.48	61	400	10.47	34.21	26.27	184	0.94
							500	8.66	34.08	26.47	166	1.11
							600	6.44	34.04	26.76	138	1.26
							700	5.02	34.07	26.96	118	1.39
							800	4.24	34.14	27.10	104	1.50
							1000	3.52	34.32	27.31	85	1.69
							1200	3.08	34.46	27.47	70	1.85

42

HUGH M. SMITH; February 9, 1955; 2029 GCT; 28°00'N, 172°34'W; wind, 080°, force 4; weather, cloudy; sea, moderate; wire angle, 09°; BT slide, 132.

0	20.42	35.34	5.18	0.14	24.93	303	0	20.42	35.34	24.93	304	0.00
44	20.44	35.35	5.10	0.12	24.93	303	10	20.42	35.34	24.93	304	0.03
89	20.04	35.25	5.18	0.15	24.96	300	20	20.43	35.34	24.93	304	0.06
128	17.72	34.83	5.10	0.27	25.23	275	30	20.43	35.35	24.93	304	0.09
173	16.28	34.70	4.91	0.44	25.47	252	50	20.44	35.35	24.93	305	0.15
218	14.98	34.54	4.91	0.58	25.64	236	75	20.32	35.31	24.93	306	0.23
326	12.29	34.36	4.92	0.94	26.06	196	100	19.43	35.13	25.03	297	0.30
439	10.35	34.23	4.84	1.23	26.31	172	125	17.91	34.86	25.21	281	
547	7.58	34.04	3.90	1.91	26.60	144	150	16.92	34.74	25.35	268	0.45
655	5.71	34.00	2.75	2.45	26.82	124	200	15.49	34.60	25.58	248	0.58
865	3.94	34.23	0.76	3.16	27.20	88	250	14.11	34.47	25.77	230	0.70
1075	3.31	34.36	0.70	3.18	27.37	72	300	12.87	34.39	25.96	213	0.81
1274	2.86	34.47	1.01	3.16	27.50	60	400	11.02	34.28	26.23	189	1.01
							500	8.79	34.12	26.48	165	1.19
							600	6.57	34.00	26.72	142	1.34
							700	5.18	34.04	26.91	123	1.48
							800	4.30	34.14	27.10	105	1.59
							1000	3.46	34.32	27.32	84	1.78
							1200	3.03	34.43	27.45	72	1.94

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HUGH M. SMITH; February 10, 1955; 1010 GCT; 26°30'N, 171°56'W; wind, 090°, force 5; weather, partly cloudy; sea, rough; wire angle, 20°; BT slide, 135.

0	21.75	35.46	5.01	0.12	24.66	330	0	21.75	35.46	24.66	329	0.00
74	21.76	35.48	5.04	0.12	24.67	328	10	21.75	35.46	24.66	330	0.03
150	21.76	35.44	4.96	0.12	24.64	332	20	21.75	35.46	24.66	330	0.07
176	19.56	35.08	4.80	0.25	24.96	300	30	21.75	35.47	24.66	330	0.10
210	17.30	34.85	4.83	0.36	25.35	264	50	21.76	35.47	24.66	330	0.16
249	15.83	34.67	4.90	0.47	25.55	244	75	21.76	35.48	24.67	331	0.25
285	14.62	34.54	4.88	0.62	25.72	228	100	21.76	35.56	24.72	327	0.33
384	12.40	34.36	4.79	0.95	26.03	198	125	21.76	35.54	24.71		
478	10.16	34.20	4.43	1.39	26.32	171	150	21.76	35.44	24.64	337	0.50
577	7.41	34.07	3.37	2.06	26.65	140	200	17.88	34.90	25.24	280	0.65
771	5.06	34.14	1.66	2.86	27.01	106	250	15.79	34.67	25.56	251	0.79
957	3.97	34.31	0.96	3.15	27.26	82	300	14.24	34.50	25.77	232	0.91
1151	3.44	34.38	0.96	3.13	27.37	72	400	12.04	34.33	26.08	203	1.13
							500	9.52	34.16	26.40	173	1.32
							600	6.99	34.06	26.70	144	1.48
							700	5.61	34.08	26.90	125	1.62
							800	4.83	34.17	27.06	110	1.73
							1000	3.85	34.33	27.29	88	1.93

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

HMS-27

HUGH M. SMITH; February 12, 1955; 1110 GCT; 28°00'N, 168°42'W; wind, 050°, force 5; weather, partly cloudy; sea, rough; wire angle, 20°; BT slide, 142.

45

0	19.92	35.26	5.13	0.23	25.00	297	0	19.92	35.26	25.00	297	0.00
61	19.94	35.28	5.21	0.16	25.01	296	10	19.92	35.26	25.00	297	0.03
122	17.60	34.87	4.95	0.32	25.29	269	20	19.93	35.27	25.00	297	0.06
164	15.74	34.63	4.91	0.48	25.54	245	30	19.93	35.27	25.00	297	0.09
205	14.92	34.56	4.84	0.56	25.67	233	50	19.94	35.28	25.01	298	0.15
248	13.96	34.49	4.84	0.68	25.82	219	75	19.53	35.20	25.06	294	0.22
310	12.60	34.40	4.88	0.83	26.03	199	100	18.60	35.04	25.17	284	0.29
418	9.89	34.18	4.67	1.28	26.35	168	125	17.45	34.85	25.31	271	0.36
521	7.40	34.07	3.63	1.97	26.65	140	150	16.31	34.70	25.46	257	0.43
624	5.92	34.04	2.43	2.56	26.83	123	200	15.00	34.56	25.66	240	0.55
826	4.10	34.20	0.75	3.21	27.16	92	250	13.92	34.49	25.83	225	0.67
1029	3.50	34.33	0.47	3.39	27.33	76	300	12.82	34.42	25.99	210	0.78
1223	3.02	34.45	0.71	3.13	27.47	63	400	10.35	34.22	26.30	182	0.98
							500	7.86	34.08	26.60	153	1.14
							600	6.20	34.04	26.79	134	1.29
							700	5.08	34.08	26.96	118	1.41
							800	4.26	34.17	27.12	102	1.52
							1000	3.54	34.31	27.31	85	1.71
							1200	3.08	34.44	27.45	72	1.87

HUGH M. SMITH; February 13, 1955; 0617 GCT; 29°30'N, 166°41'W; wind, 060°, force 5; weather, partly cloudy; sea, rough; wire angle, 26°; BT slide, 147.

46

0	19.53	35.30	5.27	0.15	25.13	284	0	19.53	35.30	25.13	284	0.00
70	19.48	35.30	5.24	0.16	25.15	283	10	19.52	35.30	25.13	284	0.03
138	19.40	35.26	5.23	0.16	25.14	284	20	19.52	35.30	25.14	284	0.06
165	19.40	35.28	5.22	0.12	25.15	282	30	19.51	35.30	25.14	285	0.09
195	17.98	34.90	5.33	0.14	25.22	276	50	19.49	35.30	25.14	285	0.14
230	16.29	34.72	4.88	0.42	25.48	250	75	19.47	35.30	25.14	286	0.21
264	14.42	34.52	4.86	0.63	25.75	226	100	19.44	35.28	25.14	287	0.29
357	12.76	34.38	5.20	0.78	25.98	204	125	19.41	35.26	25.14	288	
445	10.86	34.27	5.19	1.05	26.25	178	150	19.40	35.29	25.15	288	0.43
537	8.72	34.11	4.67	1.51	26.49	156	200	17.75	34.87	25.25	279	0.57
719	5.44	34.09	2.28	2.61	26.92	114	250	15.16	34.60	25.65	242	0.70
899	4.09	34.25	0.73	3.15	27.20	88	300	13.50	34.43	25.87	222	0.82
1087	3.53	34.38	0.43	3.21	27.36	73	400	11.86	34.33	26.11	200	1.03
							500	9.57	34.17	26.40	174	1.22
							600	7.40	34.07	26.65	149	1.38
							700	5.71	34.08	26.88	126	1.52
							800	4.67	34.15	27.06	109	1.64
							1000	3.79	34.32	27.29	88	1.84

HUGH M. SMITH; February 13, 1955; 1933 GCT; 30°57'N, 166°49'W; wind, 090°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°; BT slide, 150.

48

0	19.40	35.32	5.24	0.20	25.18	280	0	19.40	35.32	25.18	279	0.00
50	18.92	35.21	5.33	0.18	25.22	276	10	19.30	35.30	25.19	279	0.03
99	16.95	34.85	5.49	0.21	25.43	256	20	19.21	35.28	25.20	279	0.06
151	16.20	34.67	5.30	0.31	25.47	252	30	19.11	35.25	25.21	278	0.08
205	14.38	34.61	5.00	0.62	25.82	219	50	18.92	35.21	25.22	277	0.14
255	13.32	34.45	5.15	0.73	25.92	209	75	17.93	35.03	25.33	268	0.21
305	12.53	34.40	5.16	0.76	26.04	198	100	16.93	34.84	25.43	259	0.27
409	10.41	34.25	5.26	1.05	26.32	171	125	16.55	34.74	25.44	259	0.34
510	8.69	34.11	4.39	1.53	26.49	155	150	16.21	34.67	25.47	257	0.40
614	6.58	34.04	3.42	2.08	26.74	131	200	14.56	34.62	25.79	227	0.52
818	4.52	34.13	1.28	2.89	27.06	101	250	13.41	34.47	25.92	216	0.63
1016	3.63	34.34	0.41	3.21	27.32	76	300	12.61	34.40	26.03	206	0.74
1220	3.19	34.47	0.59	3.16	27.47	62	400	10.60	34.26	26.29	182	0.93
							500	8.86	34.12	26.47	166	1.11
							600	6.85	34.04	26.71	143	1.26
							700	5.47	34.05	26.89	125	1.40
							800	4.62	34.11	27.04	111	1.52
							1000	3.67	34.32	27.30	86	1.71
							1200	3.23	34.46	27.45	72	1.87

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HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

50

HUGH M. SMITH; February 14, 1955; 0810 GCT; 32°23'N, 166°39'W; wind, 090°, force 3; weather, cloudy; sea, moderate; wire angle, 14°; BT slide, 153.

0	15.73	34.58	5.87	0.20	25.50	249	0	15.73	34.58	25.50	249	0.00
40	15.74	34.61	5.79	0.18	25.53	246	10	15.73	34.59	25.51	248	0.02
78	15.70	34.60	5.75	0.19	25.53	246	20	15.73	34.60	25.52	248	0.05
117	14.39	34.70	5.63	0.43	25.89	212	30	15.74	34.60	25.52	248	0.07
155	13.45	34.49	5.35	0.59	25.93	209	50	15.74	34.60	25.52	249	0.12
199	12.65	34.45	5.30	0.73	26.06	197	75	15.73	34.60	25.52	249	0.19
296	11.28	34.25	5.42	0.91	26.16	186	100	15.02	34.67	25.73	230	0.25
398	9.97	34.16	5.15	1.18	26.32	171	125	14.17	34.66	25.91	214	
495	7.98	34.04	4.38	1.70	26.54	150	150	13.56	34.52	25.93	212	0.36
597	6.16	33.96	3.41	2.17	26.73	132	200	12.63	34.45	26.06	201	0.46
796	4.24	34.11	1.24	2.96	27.03	100	250	11.89	34.35	26.12	196	0.56
989	3.48	34.27	0.45	3.19	27.28	81	300	11.23	34.25	26.17	193	0.66
1186	3.08	34.42	0.35	3.18	27.44	65	400	9.93	34.16	26.33	179	0.85
							500	7.88	34.03	26.55	157	1.02
							600	6.12	33.96	26.74	139	1.16
							700	4.96	34.01	26.92	122	1.30
							800	4.22	34.11	27.08	106	1.41
							1000	3.46	34.28	27.29	87	1.61

51

HUGH M. SMITH; February 14, 1955; 2055 GCT; 34°23'N, 166°36'W; wind, 160°, force 3; weather, cloudy; sea, slight; wire angle, 15°; BT slide, 156.

0	13.98	34.43	5.89	0.38	25.77	223	0	13.98	34.43	25.77	223	0.00
47	13.67	34.40	5.71	0.48	25.81	220	10	13.91	34.42	25.78	223	0.02
95	13.22	34.42	5.34	0.67	25.92	209	20	13.85	34.42	25.79	222	0.04
143	12.74	34.38	5.25	0.76	25.98	204	30	13.78	34.41	25.80	222	0.07
196	12.17	34.34	5.26	0.84	26.06	196	50	13.64	34.40	25.82	220	0.11
244	11.54	34.29	5.25	0.94	26.14	188	75	13.42	34.41	25.87	216	0.17
291	10.77	34.23	5.18	1.06	26.24	179	100	13.17	34.42	25.93	211	0.22
392	9.26	34.11	5.14	1.34	26.40	164	125	12.92	34.40	25.96	208	0.27
487	7.50	33.98	4.37	1.83	26.57	148	150	12.67	34.38	25.99	206	0.32
588	5.72	33.96	3.08	2.41	26.79	127	200	12.12	34.34	26.07	200	0.42
783	4.18	34.16	1.24	3.08	27.12	95	250	11.44	34.28	26.16	193	0.52
975	3.47	34.33	0.43	3.36	27.33	75	300	10.64	34.22	26.25	184	0.62
1170	2.97	34.42	0.34	3.39	27.45	64	400	9.12	34.10	26.41	170	0.79
							500	7.25	33.97	26.60	153	0.96
							600	5.58	33.97	26.81	132	1.10
							700	4.63	34.06	26.99	114	1.22
							800	4.10	34.18	27.14	100	1.33
							1000	3.41	34.34	27.34	82	1.51

52

HUGH M. SMITH; February 15, 1955; 0613 GCT; 35°31'N, 166°42'W; wind, 180°, force 3; weather, cloudy; sea, slight; wire angle, 12°; BT slide, 158.

0	12.91	34.31	6.79	0.47	25.90	211	0	12.91	34.31	25.90	212	0.00
49	12.78	34.31	6.00	0.50	25.92	209	10	12.88	34.31	25.90	211	0.02
99	12.68	34.33	5.91	0.60	25.96	205	20	12.86	34.31	25.91	211	0.04
148	12.16	34.34	5.35	0.82	26.07	195	30	12.83	34.31	25.91	211	0.06
203	11.23	34.31	5.28	1.04	26.22	181	50	12.78	34.31	25.92	210	0.11
252	10.66	34.25	5.33	1.12	26.27	176	75	12.75	34.32	25.93	210	0.16
301	9.77	34.18	5.21	1.29	26.37	166	100	12.67	34.33	25.96	208	0.21
405	8.37	34.07	5.03	1.60	26.51	153	125	12.45	34.34	26.01	204	0.26
503	6.65	33.98	4.05	2.16	26.68	137	150	12.13	34.34	26.07	198	0.31
609	5.16	34.00	2.59	2.75	26.89	117	200	11.28	34.31	26.21	186	0.41
1005	3.58	34.34	0.39	3.42	27.33	75	250	10.68	34.25	26.27	181	0.50
1203	2.97	34.47	0.25	3.50	27.49	60	300	9.79	34.18	26.37	173	0.59
							400	8.43	34.08	26.50	161	0.76
							500	6.70	33.98	26.68	144	0.91
							600	5.27	34.00	26.87	126	1.04
							700	4.50	34.06	27.01	112	1.16
							800	3.98	34.14	27.13	101	1.27
							1000	3.58	34.34	27.32	84	1.45
							1200	2.98	34.47	27.48	69	1.61

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

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HUGH M. SMITH; February 15, 1955; 1831 GCT; 37°00'N, 166°43'W; wind, 220°, force 6; weather, intermittent slight drizzle; sea, rough; wire angle, 35°; BT slide, 161.

54

0	12.67	34.33	5.98	0.55	25.96	205	0	12.67	34.33	25.96	206	0.00
44	12.41	34.31	6.06a)	0.56	25.99	202	10	12.61	34.32	25.97	205	0.02
89	12.41	34.29	6.00	0.62	25.98	204	20	12.55	34.32	25.97	204	0.04
134	12.41	34.29	5.96	0.56	25.98	204	30	12.49	34.32	25.98	204	0.06
179	12.20	34.31	5.71	0.72	26.03	198	50	12.40	34.31	25.99	204	0.10
224	11.68	34.31	5.38	0.92	26.13	189	75	12.40	34.30	25.99	205	0.15
268	10.94	34.23	5.35	0.99	26.21	182	100	12.41	34.29	25.97	207	0.20
365	9.52	34.18	5.25	1.25	26.41	163	125	12.41	34.29	25.97		
457	7.70	34.02	4.86	1.65	26.57	148	150	12.37	34.30	25.99	206	0.31
549	6.12	33.96	3.74	2.22	26.74	131	200	11.99	34.32	26.08	199	0.41
730	4.40	34.07	1.69	3.00	27.03	104	250	11.25	34.26	26.18	190	0.51
920	3.65	34.22	0.79	3.31	27.22	86	300	10.48	34.21	26.27	182	0.60
1109	3.05	34.38	0.48	3.40	27.41	68	400	8.84	34.12	26.48	164	0.78
							500	6.92	33.98	26.65	147	0.93
							600	5.49	33.97	26.83	130	1.07
							700	4.59	34.04	26.98	115	1.20
							800	4.05	34.12	27.11	104	1.31
							1000	3.40	34.29	27.30	85	1.50

HUGH M. SMITH; February 16, 1955; 0845 GCT; 37°08'N, 164°09'W; wind, 290°, force 4; weather, cloudy; sea, rough; wire angle, 26°; BT slide, 164.

56

0	12.32	34.29	6.22a)	0.53	26.00	202	0	12.32	34.29	26.00	202	0.00
49	12.19	34.23	6.03a)	0.57	25.97	204	10	12.29	34.28	25.99	203	0.02
148	11.64	34.23	5.88	0.71	26.08	194	20	12.27	34.27	25.99	203	0.04
198	11.14	34.18	5.95	0.76	26.13	189	30	12.24	34.25	25.98	204	0.06
247	10.88	34.23	5.48	0.97	26.22	181	50	12.19	34.23	25.98	205	0.10
298	9.94	34.16	5.53	1.07	26.33	171	75	12.09	34.23	25.99	204	0.15
401	8.33	34.05	5.15	1.45	26.50	154	100	11.97	34.23	26.02	202	0.20
501	6.60	33.98	3.97	1.99	26.69	136	125	11.81	34.23	26.05	200	0.25
602	5.20	33.98	2.73	2.44	26.87	119	150	11.62	34.23	26.08	198	0.30
798	4.04	34.18	1.20	2.94	27.15	92	200	11.13	34.18	26.13	193	0.40
997	3.34	34.31	0.49	3.16	27.33	75	250	10.83	34.23	26.22	186	0.50
1187	2.92	34.42	0.33	3.24	27.45	64	300	9.91	34.16	26.33	176	0.59
							400	8.35	34.05	26.50	161	0.76
							500	6.62	33.98	26.69	143	0.91
							600	5.22	33.98	26.86	126	1.04
							700	4.46	34.07	27.02	112	1.16
							800	4.03	34.18	27.15	99	1.27
							1000	3.33	34.31	27.33	83	1.45

HUGH M. SMITH; February 16, 1955; 1924 GCT; 37°00'N, 162°16'W; wind, 300°, force 5; weather, partly cloudy; sea, moderate; wire angle, 30°; BT slide, 167.

57

0	11.34	34.16	6.25a)	0.65	26.08	194	0	11.34	34.16	26.08	194	0.00
43	11.26	34.16	6.15a)	0.66	26.09	193	10	11.32	34.16	26.08	194	0.02
87	11.20	34.14	6.16a)	0.67	26.09	193	20	11.30	34.16	26.09	194	0.04
131	11.04	34.14	6.21a)	0.69	26.12	190	30	11.28	34.16	26.09	194	0.06
179	10.96	34.13	5.48	0.72	26.13	189	50	11.25	34.16	26.09	194	0.10
222	10.50	34.22	5.45	1.06	26.28	176	75	11.22	34.14	26.09	195	0.15
267	9.94	34.18	5.30	1.12	26.34	169	100	11.15	34.14	26.10	195	0.19
360	8.71	34.07	4.39	1.37	26.46	158	125	11.06	34.14	26.11	194	0.24
447	7.24	33.98	3.35	1.86	26.60	145	150	11.03	34.13	26.11	194	0.29
543	5.86	33.96	1.60	2.30	26.77	128	200	10.76	34.18	26.20	187	0.39
724	4.39	34.07	0.81	2.94	27.03	104	250	10.16	34.20	26.32	176	0.48
906	3.69	34.20	0.41	3.27	27.20	88	300	9.53	34.14	26.38	171	0.56
1098	3.15	34.34	-	3.35	27.37	72	400	8.04	34.02	26.52	159	0.73
							500	6.44	33.96	26.70	142	0.88
							600	5.28	33.98	26.86	127	1.01
							700	4.52	34.05	27.00	114	1.13
							800	4.04	34.12	27.11	103	1.24
							1000	3.43	34.27	27.28	87	1.43

a) Estimated burette reading.

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HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

59

HUGH M. SMITH; February 17, 1955; 0817 GCT; 36°57'N, 160°05'W; wind, 330°, force 7; weather, partly cloudy; sea, rough; wire angle, 36°; BT slide, 170.

0	12.86	34.22	5.94	0.42	25.84	217	0	12.86	34.22	25.84	217	0.00
47	12.86	34.22	5.93	0.43	25.84	217	10	12.86	34.22	25.84	217	0.02
141	12.54	34.14	6.08a)	0.54	25.84	217	20	12.86	34.22	25.84	218	0.04
236	11.48	34.27	5.39	0.90	26.14	188	30	12.86	34.22	25.84	218	0.07
284	10.81	34.20	5.28	0.95	26.21	182	50	12.86	34.22	25.83	219	0.11
383	9.10	34.05	5.24	1.16	26.38	166	75	12.82	34.19	25.82	220	0.16
480	7.38	34.02	4.38	1.65	26.62	143	100	12.75	34.17	25.82	221	0.22
577	5.83	33.98	3.26	2.13	26.79	127	125	12.64	34.15	25.83	221	0.27
764	4.30	34.11	1.42	2.67	27.07	100	150	12.46	34.16	25.86	218	0.33
958	3.53	34.25	0.55	3.01	27.26	82	200	11.95	34.23	26.02	204	0.44
1148	3.05	34.36	0.27	3.07	27.39	70	250	11.29	34.25	26.16	192	0.53
							300	10.55	34.17	26.23	186	0.63
							400	8.79	34.04	26.42	169	0.81
							500	7.03	34.01	26.66	147	0.96
							600	5.57	33.99	26.83	130	1.10
							700	4.67	34.05	26.98	115	1.23
							800	4.11	34.14	27.11	103	1.33
							1000	3.42	34.27	27.29	87	1.52

60

HUGH M. SMITH; February 17, 1955; 1919 GCT; 35°28'N, 159°53'W; wind, 040°, force 2; weather, partly cloudy; sea, moderate; wire angle, 20°; BT slide, 173.

0	12.87	34.31	6.06a)	0.41	25.90	211	0	12.87	34.31	25.90	211	0.00
47	12.84	34.27	5.99a)	0.42	25.88	213	10	12.86	34.30	25.90	212	0.02
94	12.79	34.27	5.88	0.45	25.89	212	20	12.86	34.29	25.89	212	0.04
140	12.21	34.16	5.99	0.49	25.92	209	30	12.85	34.28	25.89	213	0.06
192	11.99	34.23	5.40	0.73	26.01	200	50	12.85	34.27	25.88	214	0.11
239	11.20	34.23	5.42	0.87	26.16	186	75	12.84	34.27	25.88	215	0.16
286	10.66	34.23	5.41	0.97	26.26	177	100	12.72	34.25	25.89	214	0.21
386	9.10	34.09	4.96	1.27	26.41	163	125	12.41	34.19	25.90	214	0.27
479	7.68	34.02	4.50	1.61	26.57	148	150	12.18	34.17	25.93	212	0.32
578	5.81	34.00	3.11	2.18	26.81	125	200	11.87	34.23	26.04	203	0.42
771	4.22	34.14	1.27	2.80	27.10	97	250	11.07	34.23	26.19	190	0.52
960	3.51	34.25	0.65	3.05	27.26	82	300	10.46	34.21	26.28	182	0.62
1153	3.02	34.36	0.28	3.09	27.39	70	400	8.90	34.08	26.43	168	0.79
							500	7.27	34.01	26.62	150	0.95
							600	5.54	34.01	26.85	128	1.09
							700	4.60	34.08	27.01	112	1.21
							800	4.08	34.16	27.13	101	1.31
							1000	3.41	34.27	27.29	87	1.50

61

HUGH M. SMITH; February 18, 1955; 0536 GCT; 34°00'N, 159°42'W; wind, 140°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°; BT slide, 176.

0	14.03	34.31	5.95a)	0.32	25.67	234	0	14.03	34.31	25.67	233	0.00
80	13.80	34.34	5.55	0.46	25.74	227	10	14.00	34.31	25.68	233	0.02
121	12.89	34.34	5.18	0.70	25.92	209	20	13.97	34.32	25.68	232	0.05
151	12.48	34.33	5.25	0.74	26.00	202	30	13.94	34.32	25.69	232	0.07
206	11.69	34.29	5.35	0.82	26.12	190	50	13.89	34.33	25.71	230	0.12
256	11.10	34.22	5.32	0.93	26.17	185	75	13.81	34.34	25.73	229	0.17
307	10.43	34.22	5.21	1.01	26.29	174	100	13.36	34.34	25.83	220	0.23
413	9.08	34.14	4.92	1.32	26.45	158	125	12.83	34.34	25.93	211	0.28
513	6.70	34.00	3.78	1.94	26.69	136	150	12.49	34.33	25.99	206	0.34
618	5.23	33.98	2.67	2.36	26.86	120	200	11.77	34.30	26.10	196	0.44
823	3.95	34.18	0.87	2.94	27.16	92	250	11.17	34.23	26.16	192	0.53
1020	3.31	34.33	0.28	3.16	27.34	74	300	10.52	34.22	26.27	182	0.63
1221	2.98	34.42	0.35	-	27.45	64	400	9.28	34.16	26.43	168	0.80
							500	7.01	34.02	26.66	146	0.96
							600	5.42	33.98	26.84	129	1.10
							700	4.55	34.04	26.99	114	1.22
							800	4.03	34.15	27.13	101	1.33
							1000	3.35	34.32	27.33	83	1.51
							1200	3.01	34.41	27.44	73	1.67

374

a) Estimated burette reading.

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

HMS-27

HUGH M. SMITH; February 18, 1955; 1720 GCT; 32°27'N, 159°30'W; wind, 140°, force 2; weather, partly cloudy; sea, moderate; wire angle, 20°; BT slide, 179.

63

0	16.02	34.58	5.59	0.20	25.44	255	0	16.02	34.58	25.44	255	0.00
46	16.01	34.58	5.57	0.21	25.44	254	10	16.02	34.58	25.44	255	0.03
92	16.00	34.56	5.54	0.22	25.43	256	20	16.02	34.58	25.44	255	0.05
139	14.54	34.45	5.29	0.48	25.67	233	30	16.01	34.58	25.44	256	0.08
190	13.29	34.33	5.13	0.66	25.83	218	50	16.01	34.58	25.44	256	0.13
237	12.52	34.33	5.18	0.80	25.99	202	75	16.00	34.57	25.44	258	0.19
284	11.90	34.29	5.23	0.82	26.08	194	100	15.79	34.54	25.46	256	0.26
382	10.46	34.16	5.06	1.08	26.24	179	125	15.04	34.49	25.59	244	
476	8.70	34.05	4.49	1.51	26.44	160	150	14.24	34.42	25.71	234	0.38
574	6.66	33.91	3.64	2.00	26.63	142	200	13.10	34.33	25.87	219	0.49
766	4.50	34.05	1.42	2.89	27.00	107	250	12.34	34.32	26.02	206	0.60
954	3.61	34.23	0.43	3.21	27.24	84	300	11.69	34.27	26.10	199	0.70
1147	3.08	34.38	0.31	3.23	27.41	69	400	10.14	34.14	26.28	184	0.89
							500	8.18	34.01	26.49	164	1.07
							600	6.26	33.91	26.68	145	1.22
							700	5.03	33.97	26.88	126	1.36
							800	4.28	34.08	27.05	109	1.48
							1000	3.48	34.27	27.28	88	1.68

HUGH M. SMITH; February 19, 1955; 0315 GCT; 30°59'N, 159°22'W; wind, 070°, force 2; weather, partly cloudy; sea, slight; wire angle, 06°; BT slide, 182.

64

0	17.16	34.78	5.52	0.19	25.33	265	0	17.16	34.78	25.33	266	0.00
41	17.15	34.79	5.46	0.18	25.34	265	10	17.16	34.78	25.33	266	0.03
80	16.74	34.70	5.49	0.21	25.36	262	20	17.16	34.78	25.33	266	0.05
120	14.70	34.47	5.18	0.47	25.65	235	30	17.15	34.79	25.33	266	0.08
161	13.63	34.47r	5.09	0.60	25.87r	214r	50	17.14	34.78	25.33	267	0.13
204	12.74	34.33	5.09	0.75	25.95	207	75	16.85	34.72	25.35	266	0.20
305	11.26	34.29	5.21	0.85	26.20	183	100	15.76	34.58	25.50	252	0.26
410	9.67	34.14	4.68	1.21	26.36	167	125	14.54	34.47	25.68	236	
510	7.78	34.05	4.13	1.61	26.58	146	150	13.86	34.40	25.77	227	0.38
614	5.68	33.96	2.65	2.24	26.79	127	200	12.81	34.34	25.94	212	0.50
820	4.20	34.18	0.76	2.87	27.14	93	250	12.02	34.29	26.06	202	0.60
1017	3.54	34.34	0.32	3.05	27.33	75	300	11.32	34.29	26.18	191	0.70
1220	3.13	34.43	0.44	3.00	27.44	65	400	9.83	34.16	26.34	177	0.88
							500	7.98	34.06	26.56	157	1.05
							600	5.94	33.97	26.77	136	1.20
							700	4.80	34.02	26.95	119	1.33
							800	4.25	34.15	27.11	104	1.44
							1000	3.58	34.33	27.32	84	1.63
							1200	3.17	34.42	27.43	74	1.79

HUGH M. SMITH; February 19, 1955; 1501 GCT; 29°28'N, 159°12'W; wind, 120°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°; BT slide, 185.

66

0	18.95	35.19	5.24	0.17	25.20	278	0	18.95	35.19	25.20	278	0.00
80	18.40	35.07	5.30	0.16	25.24	274	10	18.88	35.18	25.20	278	0.03
119	15.88	34.58	5.12	0.34	25.47	252	20	18.81	35.16	25.21	277	0.06
150	14.80	34.51	5.00	0.49	25.66	234	30	18.74	35.14	25.22	277	0.08
203	13.38	34.40	5.01	0.63	25.87	214	50	18.61	35.12	25.23	277	0.14
252	12.40	34.29	5.02	0.79	25.98	204	75	18.43	35.08	25.24	276	0.21
302	11.55	34.29	4.98	0.89	26.14	188	100	17.12	34.81	25.36	266	0.28
405	9.91	34.18	4.69	1.20	26.35	169	125	15.63	34.56	25.51	252	0.34
503	7.70	34.05	3.89	1.72	26.59	146	150	14.80	34.51	25.66	238	0.40
607	5.76	34.02	2.43	2.32	26.83	122	200	13.45	34.41	25.86	220	0.52
806	4.30	34.18	0.74	2.93	27.13	95	250	12.44	34.29	25.98	210	0.62
1000	3.66	34.34	0.36	3.11	27.32	76	300	11.58	34.29	26.14	196	0.73
1199	3.23	34.49	0.72	2.98	27.48	61	400	10.00	34.19	26.34	178	0.91
							500	7.77	34.05	26.59	154	1.08
							600	5.87	34.02	26.82	132	1.22
							700	4.84	34.08	26.98	116	1.34
							800	4.32	34.17	27.12	103	1.45
							1000	3.66	34.34	27.32	84	1.64

375

HBL

HMS-27

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

67

HUGH M. SMITH; February 20, 1955; 0204 GCT; 28°00'N, 159°03'W; wind, 070°, force 5; weather, cloudy; sea, rough; wire angle, 20°; BT slide, 188.

0	20.91	35.39	5.12	0.14	24.83	313	0	20.91	35.39	24.83	312	0.00
54	20.19	35.28	5.11	0.15	24.94	302	10	20.78	35.37	24.85	311	0.03
106	19.08	35.05	5.23	0.17	25.06	291	20	20.64	35.35	24.88	309	0.06
160	16.00	34.61	5.05	0.43	25.47	252	30	20.51	35.33	24.90	308	0.09
213	14.40	34.43	5.03	0.55	25.68	232	50	20.24	35.29	24.94	305	0.15
266	13.44	34.36	4.97	0.71	25.83	218	75	19.88	35.21	24.97	302	0.23
320	12.04	34.29	4.99	0.86	26.05	197	100	19.26	35.08	25.04	297	0.30
431	9.38	34.13	4.54	1.33	26.40	164	125	18.02	34.89	25.20	282	0.38
539	7.08	34.13	3.45	1.95	26.74	131	150	16.59	34.69	25.39	264	0.45
644	5.54	34.07	2.02	2.51	26.90	117	200	14.70	34.46	25.64	242	0.57
852	4.22	34.31	0.58	3.01	27.24	84	250	13.72	34.38	25.78	229	0.69
1059	3.54	34.51	0.63	3.13	27.46	63	300	12.58	34.32	25.97	212	0.80
1257	3.09	34.49	1.01	2.93	27.49	60	400	10.09	34.17	26.31	181	1.00
							500	7.85	34.12	26.63	150	1.16
							600	6.11	34.09	26.84	129	1.30
							700	5.04	34.11	26.99	115	1.42
							800	4.41	34.23	27.15	100	1.53
							1000	3.69	34.47	27.42	76	1.71
							1200	3.22	34.50	27.48	69	1.85

69

HUGH M. SMITH; February 20, 1955; 1424 GCT; 26°30'N, 158°47'W; wind, 070°, force 5; weather, partly cloudy; sea, rough; wire angle, 25°; BT slide, 191.

0	21.61	35.43	5.03	0.13	24.67	328	0	21.61	35.43	24.67	328	0.00
40	21.60	35.37	5.01	0.12	24.63	332	10	21.61	35.42	24.66	329	0.03
79	21.25	35.41	5.00	0.14	24.76	320	20	21.60	35.40	24.65	331	0.07
114	19.53	35.12	4.79	0.26	25.00	298	30	21.60	35.38	24.64	332	0.10
153	17.75	34.87	4.66	0.37	25.25	273	50	21.60	35.39	24.65	332	0.17
195	16.18	34.69	4.80	0.44	25.49	250	75	21.33	35.41	24.74	325	0.25
292	12.12	34.18	4.64	0.84	25.95	206	100	20.29	35.25	24.89	310	0.33
395	9.85	34.13	4.57	1.11	26.32	170	125	19.00	35.04	25.07	294	0.40
493	7.44	34.07	3.72	1.79	26.65	141	150	17.88	34.99	25.23	279	0.47
591	6.18	34.00	2.60	2.27	26.76	129	200	15.96	34.66	25.51	254	0.61
785	4.44	34.18	0.75	2.94	27.11	96	250	13.80	34.38	25.77	230	0.73
981	3.76	34.42	0.69	3.08	27.37	72	300	11.91	34.17	25.98	211	0.84
1171	3.30	34.49	1.03	2.94	27.47	62	400	9.72	34.13	26.34	178	1.03
							500	7.33	34.06	26.66	147	1.19
							600	6.08	34.00	26.78	136	1.34
							700	5.08	34.07	26.95	119	1.46
							800	4.37	34.20	27.13	102	1.57
							1000	3.71	34.43	27.38	79	1.75

70

HUGH M. SMITH; February 21, 1955; 0155 GCT; 25°00'N, 158°40'W; wind, 060°, force 5; weather, cloudy; sea, very rough; wire angle, 05°; BT slide, 194.

0	21.55	35.41	5.05	0.13	24.67	328	0	21.55	35.41	24.67	328	0.00
56	20.94	35.39	5.08	0.14	24.83	314	10	21.44	35.41	24.70	326	0.03
110	19.55	35.12	4.78	0.23	24.99	298	20	21.33	35.40	24.73	323	0.07
165	17.92	34.92	4.75	0.34	25.25	273	30	21.22	35.40	24.76	321	0.10
220	15.26	34.58	4.62	0.52	25.61	239	50	21.01	35.39	24.81	317	0.16
275	12.84	34.45	4.81	0.79	26.02	200	75	20.51	35.30	24.88	311	0.24
331	11.06	34.33	4.65	1.01	26.26	177	100	19.84	35.18	24.96	304	0.32
362	10.10	34.16	4.52	1.36	26.30	173	125	19.17	35.07	25.05	296	0.39
444	8.43	34.07	4.17	1.77	26.50	154	150	18.43	34.98	25.17	286	0.46
553	6.31	34.04	2.68	2.24	26.78	128	200	16.27	34.70	25.47	258	0.60
588	5.56	34.09	1.73	2.70	26.91	115	250	13.88	34.50	25.84	224	0.72
658	4.94	34.13	1.21	2.83	27.01	105	300	12.00	34.41	26.15	194	0.82
801	4.41	34.31	0.90	3.01	27.22	86	400	9.24	34.08	26.38	173	1.01
							500	7.35	34.03	26.63	150	1.17
							600	5.40	34.10	26.94	120	1.30
							700	4.78	34.18	27.07	107	1.42
							800	4.41	34.31	27.21	94	1.52

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δT	Z	T	S	σ_t	δT	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

HMS-27

HUGH M. SMITH; February 21, 1955; 1506 GCT; 23°29'N, 158°27'W; wind, 200°, force 2; weather, partly cloudy; sea, slight; wire angle, 20°; BT slide, 197.

72

0	22.41	35.21	5.04	0.24	24.28	365	0	22.41	35.21	24.28	365	0.00
38	22.39	35.21	4.88	0.22	24.29	364	10	22.40	35.21	24.28	365	0.04
74	22.34	35.17	4.88	0.24	24.27	366	20	22.40	35.21	24.28	366	0.07
111	22.34	35.21	4.89	0.24	24.30	363	30	22.39	35.21	24.29	366	0.11
150	21.64	35.26	4.69	0.23	24.54	341	50	22.37	35.20	24.28	367	0.18
191	19.64	35.12	4.68	0.29	24.97	300	75	22.34	35.17	24.27	369	0.28
284	14.23	34.42	4.50	0.71	25.71	229	100	22.34	35.19	24.29	365	0.37
382	9.88	34.14	3.81	1.57	26.32	171	125	22.20	35.24	24.36	362	
476	8.02	34.16	2.54	2.23	26.63	142	150	21.64	35.26	24.54	346	0.55
574	6.38	34.20	1.43	2.64	26.89	116	200	19.12	35.06	25.05	299	0.71
767	4.60	34.25	0.79	3.07	27.15	92	250	16.21	34.68	25.47	259	0.85
954	3.94	34.43	1.03	3.16	27.36	73	300	13.39	34.35	25.83	226	0.97
1147	3.46	34.52	1.28	3.06	27.48	61	400	9.43	34.13	26.39	172	1.17
							500	7.58	34.17	26.70	143	1.33
							600	6.05	34.20	26.94	120	1.46
							700	5.05	34.23	27.08	107	1.58
							800	4.44	34.28	27.19	96	1.68
							1000	3.83	34.45	27.39	78	1.86

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL
HMS-31
EASTROPIC

HUGH M. SMITH; October 28, 1955; 0248 GCT; 7°06'N, 108°36'W; wind, 250°, force 4; weather, cloudy;
sea, moderate; wire angle, 30°; BT slide, 299.

64

0	26.04	33.49	5.25	0.34	21.91	592	0	26.04	33.49	21.91	592	0.00
45	26.08	33.55	5.09	0.34	21.94	589	10	26.05	33.50	21.91	592	0.06
66	25.02	33.92	4.57	0.41	22.54	531	20	26.06	33.52	21.92	592	0.12
91	16.86	34.69	1.28	1.86	25.33	265	30	26.07	33.53	21.93	591	0.18
137	12.52	34.85	0.80	2.22	26.39	165	50	26.07	33.62	21.99	586	0.30
183	11.66	34.79	0.73	2.18	26.51	153	75	22.28	34.20	23.56	437	0.42
276	10.53	34.73	1.01	2.34	26.67	138	100	15.33	34.79	25.76	228	0.51
374	9.36	34.69	0.79	2.44	26.84	122	125	12.82	34.90	26.37	170	
469	8.34	34.65	0.31	2.78	26.97	110	150	12.09	34.84	26.47	161	0.60
564	7.27	34.59	0.25	3.21	27.08	99	200	11.42	34.78	26.54	155	0.68
758	5.68	34.56	-	-	27.27	81	250	10.80	34.74	26.63	148	0.76
950	4.62	34.56	-	-	27.39	70	300	10.24	34.72	26.71	141	0.83
1146	4.00	34.56	-	-	27.46	63	400	9.08	34.68	26.88	126	0.97
							500	7.98	34.63	27.01	115	1.09
							600	6.93	34.58	27.12	105	1.20
							700	6.09	34.56	27.22	96	1.30
							800	5.41	34.56	27.30	88	1.39
							1000	4.46	34.56	27.41	78	1.56

HUGH M. SMITH; October 28, 1955; 1600 GCT; 5°52'N, 109°05'W; wind, 180°, force 4; weather, cloudy;
sea, slight; wire angle, 10°; BT slide, 305.

66

0	25.98	33.96	4.66	0.22	22.28	557	0	25.98	33.96	22.28	556	0.00
53	26.01	34.00	4.75	0.28	22.30	554	10	25.99	33.97	22.28	556	0.06
87	21.33	34.57	3.29	1.22	24.10	383	20	25.99	33.98	22.29	556	0.11
115	15.30	34.70	0.92	2.00	25.69	231	30	26.00	33.98	22.29	556	0.17
211	11.24	34.79	0.86	2.24	26.59	146	50	26.01	34.00	22.30	556	0.28
317	9.92	34.72	0.84	2.52	26.77	129	75	23.36	34.37	23.37	454	0.40
427	8.76	34.66	-	-	26.91	115	100	18.52	34.65	24.90	310	0.50
532	7.32	34.60	0.27	2.81	27.08	99	125	14.21	34.73	25.95	210	0.57
639	6.14	34.56	-	-	27.21	87	150	12.17	34.77	26.40	168	0.61
844	4.88	34.58	1.00	2.68	27.38	71	200	10.98	34.80	26.64	146	0.69
1051	4.18	34.59	-	-	27.46	63	250	10.55	34.77	26.70	141	0.76
1246	3.66	34.61	1.47	2.78	27.53	56	300	10.01	34.74	26.76	136	0.83
							400	9.05	34.67	26.87	126	0.96
							500	7.76	34.62	27.03	112	1.08
							600	6.53	34.57	27.17	100	1.19
							700	5.67	34.56	27.27	90	1.28
							800	5.07	34.57	27.35	83	1.37
							1000	4.32	34.59	27.45	74	1.53
							1200	3.78	34.60	27.52	68	1.67

HUGH M. SMITH; October 29, 1955; 0230 GCT; 4°39'N, 109°24'W; wind, 160°, force 4; weather, partly
cloudy; sea, slight; wire angle, 08°; BT slide, 310.

67

0	25.62	34.18	4.69	0.25	22.55	530	0	25.62	34.18	22.55	530	0.00
83	22.22	34.70	3.18	0.92	23.95	397	10	25.58	34.24	22.61	525	0.05
98	17.68	34.71	1.83	1.59	25.15	283	20	25.54	34.30	22.67	520	0.10
122	14.16	34.79	0.66	2.10	26.01	201	30	25.49	34.37	22.73	514	0.16
147	12.40	34.80	0.77	1.96	26.38	166	50	25.41	34.49	22.85	504	0.26
201	11.14	34.74	1.23	2.01	26.57	148	75	25.29	34.65	23.01	489	0.38
299	9.80	34.72	1.02	2.27	26.79	127	100	17.26	34.72	25.25	276	0.48
401	8.81	34.67	-	-	26.91	115	125	13.88	34.79	26.07	198	
498	7.72	34.61	0.28	2.56	27.03	104	150	12.28	34.80	26.40	168	0.59
600	6.74	34.60	-	-	27.16	92	200	11.15	34.74	26.57	152	0.67
798	5.22	34.56	1.08	2.72	27.32	76	250	10.37	34.72	26.69	141	0.74
989	4.46	34.57	-	-	27.42	67	300	9.79	34.72	26.79	133	0.81
1183	3.72	34.61	1.53	2.59	27.53	57	400	8.82	34.67	26.91	123	0.94
							500	7.70	34.61	27.03	112	1.06
							600	6.74	34.60	27.16	100	1.17
							700	5.89	34.58	27.25	92	1.26
							800	5.21	34.56	27.32	85	1.35
							1000	4.42	34.57	27.42	76	1.52

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HBL

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EASTROPIC

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

69

HUGH M. SMITH; October 29, 1955; 1538 GCT; 3°13'N, 110°12'W; wind, 140°, force 4; weather, partly cloudy; sea, moderate; wire angle, 50°; BT slide, 316.

0	24.94	-	4.80	0.32	-	-	0	24.94	-	-	-	0.00
40	24.68	34.24	4.85	0.35	22.89	498	10	24.87	34.14	22.75	512	0.05
51	24.48	34.27	4.71	0.40	22.97	490	20	24.81	34.17	22.79	508	0.10
62	18.16	34.74	3.70	1.15	25.05	292	30	24.74	34.20	22.84	504	0.15
91	14.35	34.94	1.80	1.68	26.08	194	50	24.63	34.26	22.92	497	0.25
122	13.57	34.94	1.86	1.71	26.25	178	75	15.12	34.94	25.91	212	0.34
180	12.85	34.92	1.73	1.80	26.38	166	100	13.93	34.95	26.18	187	0.39
240	12.45	34.92	-	-	26.46	158	125	13.52	34.94	26.26	180	0.44
299	11.90	34.85	0.78	2.18	26.51	153	150	13.14	34.93	26.33	174	0.48
362	10.75	34.77	-	-	26.66	139	200	12.71	34.92	26.41	168	0.57
490	8.36	34.64	0.28	2.71	26.96	111	250	12.38	34.91	26.47	164	0.65
621	7.03	34.64	-	-	27.15	93	300	11.88	34.85	26.51	160	0.73
766	5.84	34.57	1.10	2.84	27.25	83	400	9.99	34.72	26.76	138	0.88
							500	8.23	34.64	26.98	118	1.01
							600	7.20	34.64	27.13	104	1.12
							700	6.38	34.60	27.21	97	1.22

70

HUGH M. SMITH; October 30, 1955; 0526 GCT; 2°10'N, 110°53'W; wind, 140°, force 4; weather, cloudy; sea, moderate; wire angle, 55°; BT slide, 321.

0	24.53	34.18	-	0.35	22.89	498	0	24.53	34.18	22.89	498	0.00
13	24.57	34.09	4.73	0.31	22.81	506	10	24.56	34.11	22.82	505	0.05
23	24.59	34.11	4.70	0.31	22.81	505	20	24.58	34.08	22.79	508	0.10
33	23.00	34.47	3.88	0.61	23.55	434	30	23.61	34.35	23.29	461	0.15
50	18.25	34.81	4.07	0.88	25.08	289	50	18.25	34.81	25.08	290	0.22
63	14.54	34.96	2.20	1.10	26.06	196	75	13.33	35.00	26.34	171	0.28
102	13.34	34.97	1.89	1.22	26.32	171	100	13.21	34.98	26.35	171	0.32
126	13.03	34.95	-	-	26.37	167	125	13.04	34.95	26.37	170	
153	12.78	34.92	1.67	1.34	26.39	164	150	12.80	34.92	26.39	168	0.41
204	12.44	34.92	-	-	26.46	158	200	12.47	34.92	26.45	164	0.49
250	11.89	34.88	0.75	1.54	26.54	151	250	11.89	34.88	26.54	157	0.57

72

HUGH M. SMITH; October 30, 1955; 1538, 1559 GCT; 1°04'N, 111°33'W; wind, 140°, force 5; weather, cloudy; sea, moderate; wire angle, 45°, 40°; BT slide, 326.

0	22.26	34.21	4.58	0.50	23.57	433	0	22.26	34.21	23.57	433	0.00
7	22.26	34.20	4.58	0.53	23.56	434	10	22.26	34.21	23.56	434	0.04
15	22.14	34.25	4.43	0.58	23.63	427	20	21.52	34.38	23.90	403	0.09
31	19.84	34.68	4.35	0.86	24.58	337	30	20.01	34.65	24.51	344	0.12
57	17.86	34.82	4.57	1.09	25.19	279	50	18.26	34.82	25.09	290	0.19
89	16.06	34.97	1.86	1.65	25.73	227	75	16.95	34.92	25.48	253	0.25
							100	14.75	34.98	26.03	202	0.31
110	13.58	34.97	1.92	1.67	26.27	176	125	12.87	34.96	26.40	167	0.36
154	12.47	34.92	1.37	1.87	26.45	158	150	12.45	34.93	26.46	162	0.40
309	11.42	34.87	0.50	2.26	26.62	143	200	12.05	34.91	26.53	156	0.48
386	10.03	34.72	-	-	26.75	130	250	11.69	34.90	26.59	152	0.55
552	7.74	34.64	0.87	2.60	27.05	102	300	11.45	34.88	26.61	150	0.63
							400	9.84	34.71	26.78	136	0.77
							500	8.46	34.66	26.96	120	0.90

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL
HMS-31
EASTROPIC

HUGH M. SMITH; October 31, 1955; 0227 GCT; 0°12'S, 112°25'W; wind, 110°, force 4; weather, clear; sea, slight; wire angle, 30°; BT slide, 331.

73

0	19.84	34.66	4.53	0.74	24.56	338	0	19.84	34.66	24.56	338	0.00
20	19.60	34.70	4.44	0.80	24.66	330	10	19.72	34.68	24.61	334	0.03
44	18.82	34.81	4.15	0.93	24.94	302	20	19.60	34.70	24.66	330	0.07
69	14.35	34.94	1.95	1.56	26.08	194	30	19.52	34.74	24.71	325	0.10
81	14.10	34.94	2.11	1.56	26.14	189	50	17.67	34.85	25.25	274	0.16
126	12.59	34.90	2.15	1.54	26.42	162	75	14.15	34.94	26.13	191	0.22
180	12.32	34.90	2.32	1.58	26.47	157	100	13.45	34.92	26.26	179	0.26
271	11.96	34.87	-	-	26.51	153	125	12.62	34.90	26.41	166	0.31
366	10.17	34.70	0.56	2.30	26.71	134	150	12.36	34.90	26.46	162	0.35
458	8.06	34.64	-	-	27.00	107	200	12.29	34.90	26.47	162	0.43
550	7.34	34.63	1.07	2.43	27.10	97	250	12.10	34.88	26.50	160	0.51
733	5.63	34.58	-	-	27.29	80	300	11.51	34.82	26.56	156	0.59
975	4.77	34.58	1.92	2.46	27.39	70	400	9.33	34.67	26.83	131	0.73
							500	7.65	34.63	27.06	110	0.85
							600	6.85	34.62	27.16	101	0.96
							700	5.92	34.59	27.26	91	1.05
							800	5.39	34.58	27.32	86	1.14

HUGH M. SMITH; October 31, 1955; 1632 GCT; 1°23'S, 112°46'W; wind, 090°, force 4; weather, cloudy; sea, slight; wire angle, 06°; BT slide, 337.

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0	20.70	34.93	-	-	24.54	-	0	20.70	34.93	24.54	340	0.00
3	20.70	34.93	4.74	0.78	24.54	341	10	20.68	34.92	24.54	341	0.03
27	20.64	34.93	4.71	0.81	24.56	339	20	20.66	34.92	24.54	341	0.07
47	17.41	35.00	2.71	1.32	25.43	255	30	20.25	34.94	24.67	329	0.10
66	14.39	34.97	1.36	1.74	26.10	192	50	16.88	35.00	25.56	245	0.16
101	12.78	34.93	1.52	1.71	26.40	164	75	13.68	34.96	26.24	181	0.21
154	12.44	34.89	1.29	1.57	26.44	160	100	12.78	34.93	26.40	166	0.26
218	12.06	34.90	0.81	1.76	26.52	152	125	12.47	34.91	26.45	162	
325	10.94	34.83	-	-	26.67	138	150	12.42	34.89	26.44	163	0.34
437	8.52	34.67	0.62	2.00	26.96	111	200	12.18	34.90	26.49	160	0.42
544	6.88	34.60	-	-	27.14	93	250	11.82	34.89	26.56	155	0.50
651	6.15	34.60	1.53	-	27.24	84	300	11.28	34.86	26.63	149	0.58
858	5.02	34.56	-	-	27.35	74	400	9.35	34.72	26.86	128	0.71
1015	4.00	34.58	2.07	-	27.47	62	500	7.46	34.62	27.08	108	0.83
							600	6.43	34.60	27.20	96	0.94
							700	5.88	34.59	27.27	91	1.03
							800	5.33	34.57	27.32	86	1.12
							1000	4.10	34.58	27.46	72	1.28

HUGH M. SMITH; November 1, 1955; 0329 GCT; 2°54'S, 113°08'W; wind, 100°, force 4; weather, cloudy; sea, slight; wire angle, 03°; BT slide, 342.

76

0	21.48	35.07	4.83	1.21	24.44	351	0	21.48	35.07	24.44	350	0.00
21	20.54	35.07	4.48	1.51	24.69	326	10	21.03	35.07	24.56	339	0.03
41	13.96	34.99	1.69	2.14	26.21	182	20	20.58	35.07	24.68	328	0.07
60	13.40	34.97	0.90	2.45	26.31	172	30	17.54	35.04	25.43	257	0.10
100	12.74	34.94	1.35	2.32	26.42	162	50	13.34	34.98	26.32	172	0.14
150	12.61	34.90	1.31	-	26.41	162	75	13.08	34.96	26.36	169	0.18
204	12.45	34.90	1.14	-	26.44	160	100	12.74	34.94	26.42	165	0.22
303	11.68	34.87	-	-	26.57	148	125	12.63	34.92	26.42	165	0.27
407	9.15	34.72	0.25	-	26.89	117	150	12.61	34.90	26.41	166	0.31
506	7.78	34.64	-	-	27.04	103	200	12.47	34.90	26.44	165	0.39
609	6.88	34.60	0.76	-	27.14	93	250	12.23	34.90	26.48	162	0.47
809	5.44	34.57	-	-	27.30	78	300	11.72	34.87	26.56	156	0.55
1002	4.43	34.56	1.92	-	27.41	68	400	9.33	34.73	26.87	127	0.69
							500	7.84	34.64	27.04	112	0.81
							600	6.95	34.60	27.13	103	0.92
							700	6.17	34.58	27.22	95	1.02
							800	5.50	34.57	27.30	88	1.11
							1000	4.44	34.56	27.41	78	1.28

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HBL

HMS-31
EASTROPIC

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

78

HUGH M. SMITH; November 1, 1955; 1632, 1704 GCT; 4°24'S, 113°00'W; wind, 120°, force 4; weather, cloudy; sea, moderate; wire angle, 35°, 45°; BT slide, 347.

0	21.10	34.99	4.76	1.14	24.48	346	0	21.10	34.99	24.48	346	0.00
15	20.98	34.99	4.76	1.16	24.51	344	10	21.02	34.99	24.50	345	0.03
30	15.20	35.05	1.50	1.92	25.98	203	20	19.19	35.01	25.00	297	0.07
60	13.39	34.99	0.86	-	26.32	171	30	15.20	35.05	25.98	204	0.09
106	12.80	34.92	1.38	1.84	26.39	165	50	13.21	35.02	26.39	166	0.13
155	12.60	34.94	1.00	-	26.44	159	75	13.03	34.96	26.37	168	0.17
231	12.18	34.92	0.84	-	26.51	153	100	12.79	34.93	26.40	167	0.21
311	11.28	34.85	-	-	26.63	142	125	12.70	34.92	26.41	166	0.25
388	9.52	34.74	0.21	-	26.85	121	150	12.61	34.94	26.44	164	0.30
469	8.30	34.65	-	-	26.97	109	200	12.38	34.94	26.48	161	0.38
							250	12.03	34.91	26.53	158	0.46
627	6.94	34.58	0.98	-	27.12	96	300	11.45	34.86	26.61	151	0.53
778	5.82	34.54	-	-	27.23	85	400	9.31	34.72	26.87	127	0.67
944	4.62	34.79	1.52	-	27.57	52	500	7.97	34.63	27.01	115	0.79
							600	7.12	34.59	27.10	107	0.90
							700	6.39	34.54	27.16	101	1.01
							800	5.66	34.57	27.28	90	1.10

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HUGH M. SMITH; November 2, 1955; 0335, 0345 GCT; 5°24'S, 113°18'W; wind, 110°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°, 20°; BT slide, 352.

0	22.14	35.03	5.00	0.94	24.22	371	0	22.14	35.03	24.22	371	0.00
32	22.02	35.07	5.05	-	24.29	365	10	22.10	35.04	24.24	369	0.04
							20	22.06	35.06	24.26	368	0.07
41a)	19.78	35.05	4.98	0.74	24.88	307	30	22.03	35.07	24.28	366	0.11
90a)	13.33	34.96	0.84	2.50	26.31	172	50	18.03	35.03	25.31	269	0.17
150a)	12.82	34.94	0.78	2.26	26.40	164	75	14.50	34.95	26.09	196	0.23
250a)	12.13	34.90	0.23	-	26.51	154	100	12.96	34.95	26.38	168	0.28
355a)	10.82	34.79	0.14	-	26.66	138	125	12.88	34.94	26.39		
557a)	7.68	34.64	-	-	27.06	101	150	12.82	34.94	26.40	168	0.36
755a)	5.77	34.56	1.22	-	27.26	82	200	12.50	34.92	26.45	164	0.45
953a)	4.64	34.58	-	-	27.41	68	250	12.13	34.90	26.51	160	0.53
1180a)	3.86	34.57	2.05	-	27.48	61	300	11.56	34.85	26.58	154	0.61
							400	10.10	34.75	26.76	138	0.75
							500	8.55	34.68	26.96	120	0.88
							600	7.18	34.62	27.11	106	1.00
							700	6.20	34.57	27.21	96	1.10
							800	5.46	34.56	27.29	89	1.19
							1000	4.48	34.58	27.42	77	1.36

81

HUGH M. SMITH; November 2, 1955; 1631 GCT; 6°37'S, 113°56'W; wind, 110°, force 5; weather, partly cloudy; sea, moderate; wire angle, 10°; BT slide, 358.

0	22.46	35.08	5.09	0.86	24.17	376	0	22.46	35.08	24.17	376	0.00
44	22.49	35.08	5.08	0.91	24.16	377	10	22.47	35.08	24.17	376	0.04
73	22.19	35.09	4.34	1.05	24.25	368	20	22.47	35.08	24.17	377	0.08
107	15.54	35.01	1.89	1.74	25.88	213	30	22.48	35.08	24.16	378	0.11
151	12.80	34.94	0.18	2.29	26.40	163	50	22.54	35.08	24.15	380	0.19
214	11.84	34.92	0.30	-	26.58	147	75	21.84	35.09	24.35	362	0.28
320	10.61	34.83	0.29	-	26.73	132	100	17.03	35.03	25.55	248	0.36
433	9.06	34.70	-	-	26.89	117	125	13.92	34.98	26.20	186	
540	7.71	34.63	0.79	-	27.05	102	150	12.82	34.94	26.40	167	0.46
645	6.63	34.56	-	-	27.14	93	200	11.90	34.92	26.57	153	0.54
853	5.28	34.54	1.62	-	27.30	78	250	11.41	34.90	26.64	147	0.62
1058	4.42	34.51	-	-	27.37	71	300	10.83	34.85	26.71	141	0.69
1252	3.66	34.60	2.35	-	27.52	57	400	9.52	34.74	26.85	129	0.83
							500	8.19	34.65	26.99	116	0.95
							600	7.06	34.59	27.11	106	1.06
							700	6.20	34.55	27.19	98	1.16
							800	5.55	34.54	27.27	92	1.26
							1000	4.64	34.51	27.35	84	1.44
							1200	3.86	34.58	27.48	71	1.59

382

a) Posttrip.

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL
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EASTROPIC

HUGH M. SMITH; November 3, 1955; 0325 GCT; 7°37'N, 114°48'W; wind, 100°, force 4; weather, missing; sea, moderate; wire angle, 24°; BT slide, 363.

82

0	23.07	35.24	5.01	0.98	24.12	381	0	23.07	35.24	24.12	381	0.00
50	22.94	35.21	5.00	0.85	24.13	379	10	23.04	35.23	24.12	381	0.04
73	22.32	35.11	4.98	1.14	24.23	370	20	23.02	35.23	24.12	381	0.08
100	22.10	35.30	4.65	1.03	24.44	350	30	22.99	35.22	24.12	381	0.11
151	13.76	34.90	0.29	-	26.18	185	50	22.94	35.21	24.13	381	0.19
200	12.13	34.90	0.28	-	26.51	154	75	22.34	35.12	24.23	372	0.28
300	10.89	34.83	0.41	-	26.68	137	100	22.10	35.30	24.44	354	0.38
407	9.51	34.72	-	-	26.84	122	125	18.24	35.14	25.34	269	0.45
507	8.16	34.65	0.86	-	27.00	107	150	13.94	34.91	26.15	192	0.51
609	7.29	34.60	-	-	27.08	99	200	12.13	34.90	26.51	159	0.60
806	5.37	34.52	1.20	-	27.27	81	250	11.34	34.87	26.63	147	0.68
1005	4.34	34.54	-	-	27.41	68	300	10.89	34.83	26.68	144	0.75
1198	3.68	34.57	2.22	-	27.50	60	400	9.60	34.73	26.83	132	0.89
							500	8.25	34.65	26.99	117	1.01
							600	7.36	34.60	27.08	109	1.12
							700	6.37	34.56	27.18	100	1.23
							800	5.42	34.52	27.27	91	1.32
							1000	4.36	34.54	27.40	78	1.49

HUGH M. SMITH; November 4, 1955; 1628 GCT; 7°56'S, 120°04'W; wind, 110°, force 5; weather, partly cloudy; sea, moderate; wire angle, 18°; BT slide, 379.

85

0	23.72	35.31	4.97	0.87	23.98	394	0	23.72	35.31	23.98	394	0.00
50	23.76	35.31	4.89	-	23.97	395	10	23.73	35.31	23.98	395	0.04
96	23.39	35.73	4.62	0.74	24.39	354	20	23.74	35.31	23.97	395	0.08
119	20.17	35.64	3.91	0.97	25.22	276	30	23.74	35.31	23.97	396	0.12
160	15.16	34.99	2.06	1.84	25.95	206	50	23.76	35.31	23.97	397	0.20
200	12.26	34.78	0.99	-	26.39	165	75	23.80	35.56	24.14	381	0.30
301	9.97	34.74	1.22	-	26.77	128	100	22.89	35.73	24.54	345	0.39
408	8.67	34.67	-	-	26.93	113	125	19.34	35.55	25.37	266	
610	6.76	34.54	-	-	27.11	96	150	16.24	35.16	25.83	222	0.53
809	5.28	34.52	1.41	-	27.28	80	200	12.26	34.78	26.39	170	0.63
1009	4.28	34.56	-	-	27.43	66	250	10.61	34.72	26.64	146	0.71
1202	3.62	34.56	2.29	-	27.50	60	300	9.97	34.74	26.77	135	0.78
							400	8.74	34.68	26.93	121	0.91
							500	7.73	34.60	27.02	113	1.02
							600	6.84	34.54	27.10	106	1.13
							700	6.04	34.52	27.19	98	1.24
							800	5.34	34.52	27.28	90	1.33
							1000	4.32	34.56	27.42	76	1.50
							1200	3.63	34.56	27.50	69	1.65

HUGH M. SMITH; November 5, 1955; 0335 GCT; 6°43'S, 120°06'W; wind, 110°, force 5; weather, partly cloudy; sea, moderate; wire angle, 25°; BT slide, 384.

86

0	23.68	35.25	4.89	0.87	23.95	397	0	23.68	35.25	23.95	397	0.00
41	23.62	35.23	4.88	0.91	23.95	397	10	23.67	35.24	23.95	398	0.04
75	23.14	35.34	4.78	0.85	24.17	376	20	23.65	35.24	23.95	398	0.08
116	20.82	35.71	4.80	0.86	25.10	287	30	23.64	35.24	23.95	398	0.12
156	14.06	34.97	0.68	2.60	26.17	186	50	23.58	35.24	23.97	396	0.20
196	12.24	34.92	0.20	-	26.50	154	75	23.14	35.34	24.17	378	0.30
295	10.95	34.81	0.36	-	26.66	139	100	22.12	35.62	24.67	332	0.38
398	9.40	34.74	-	-	26.87	119	125	19.28	35.56	25.40	263	0.46
497	7.93	34.65	1.05	-	27.03	104	150	15.06	35.09	26.05	201	0.52
597	6.82	34.58	-	-	27.13	94	200	12.15	34.92	26.51	158	0.61
793	5.41	34.56	1.36	-	27.30	78	250	11.26	34.86	26.63	147	0.68
990	4.52	34.54	-	-	27.39	70	300	10.88	34.81	26.67	145	0.76
1180	3.71	34.56	2.36	-	27.49	61	400	9.37	34.74	26.87	127	0.89
							500	7.89	34.65	27.03	112	1.01
							600	6.79	34.58	27.14	103	1.12
							700	5.98	34.56	27.23	94	1.22
							800	5.37	34.56	27.30	88	1.31
							1000	4.48	34.54	27.39	80	1.48

383

HBL

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EASTROPIC

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

88

HUGH M. SMITH; November 5, 1955; 1634 GCT; 5°14'S, 120°08'W; wind, 110°, force 5; weather, intermittent moderate rain; sea, moderate; wire angle, 22°; BT slide, 390.

0	23.58	35.30	4.86	0.71	24.01	391	0	23.58	35.30	24.01	391	0.00
39	23.62	35.30	4.89	1.07	24.00	392	10	23.59	35.30	24.01	391	0.04
73	23.24	35.62	4.70	0.87	24.35	358	20	23.60	35.30	24.01	392	0.08
111	15.68	35.12	2.05	1.60	25.93	208	30	23.61	35.30	24.00	393	0.12
153	12.94	34.92	0.17	2.61	26.36	167	50	23.63	35.43	24.09	385	0.20
188	11.97	34.88	0.31	-	26.52	152	75	22.88	35.60	24.44	352	0.29
283	10.70	34.81	0.31	-	26.70	135	100	18.01	35.30	25.51	251	0.36
383	9.24	34.71	-	-	26.87	112	125	14.34	35.02	26.15	191	
479	7.98	34.63	1.10	-	27.01	106	150	13.01	34.92	26.35	172	0.47
575	6.98	34.60	-	-	27.13	94	200	11.76	34.87	26.55	154	0.55
764	5.61	34.54	1.36	-	27.26	82	250	11.03	34.83	26.66	145	0.63
956	4.54	34.54	-	-	27.38	70	300	10.45	34.79	26.73	139	0.70
1145	3.62	34.58	2.36	-	27.51	58	400	9.00	34.69	26.90	124	0.83
							500	7.74	34.62	27.04	112	0.95
							600	6.77	34.59	27.15	102	1.06
							700	6.01	34.56	27.22	95	1.16
							800	5.39	34.54	27.28	90	1.25
							1000	4.33	34.55	27.42	77	1.42

89

HUGH M. SMITH; November 6, 1955; 0326 GCT; 4°13'S, 120°06'W; wind, 120°, force 4; weather, partly cloudy; sea, moderate; wire angle, 29°; BT slide, 395.

0	23.58	35.46	4.89	0.80	24.13	379	0	23.58	35.46	24.13	379	0.00
62	23.50	35.46	4.88	0.95	24.16	377	10	23.57	35.46	24.14	379	0.04
89	17.13	35.23	2.55	1.60	25.68	232	20	23.55	35.46	24.14	379	0.08
115	13.37	34.90	0.77	2.52	26.26	177	30	23.54	35.46	24.14	379	0.11
154	12.33	34.92	1.72	2.14	26.48	156	50	23.52	35.46	24.15	379	0.19
194	11.72	34.87	1.18	-	26.56	149	75	20.52	35.36	24.92	307	0.28
291	10.38	34.78	0.21	-	26.73	132	100	15.25	35.08	26.00	205	0.34
393	8.77	34.70	-	-	26.94	112	125	12.82	34.88	26.35	171	0.39
491	7.82	34.67	0.98	-	27.06	101	150	12.30	34.90	26.48	160	0.43
509	7.65	34.67	0.75	-	27.09	99	200	11.64	34.86	26.57	152	0.51
588	6.76	34.63	-	-	27.18	89	250	10.95	34.82	26.66	145	0.58
							300	10.23	34.77	26.75	137	0.65
							400	8.69	34.70	26.95	119	0.78
							500	7.74	34.67	27.07	108	0.89

91

HUGH M. SMITH; November 6, 1955; 1632 GCT; 2°48'S, 120°06'W; wind, 110°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°; BT slide, 401.

0	22.58	35.16	4.94	0.68	24.20	373	0	22.58	35.16	24.20	373	0.00
50	22.52	35.35	4.62	1.23	24.36	358	10	22.57	35.20	24.23	371	0.04
73	15.28	35.01	1.38	2.04	25.94	208	20	22.56	35.24	24.26	368	0.07
100	13.54	34.98	0.85	2.42	26.29	175	30	22.54	35.27	24.29	365	0.11
150	12.79	34.95	0.54	-	26.41	162	50	22.52	35.35	24.36	360	0.18
200	12.44	34.90	0.46	-	26.45	159	75	15.01	35.00	25.99	205	0.25
300	11.17	34.83	0.18	-	26.63	142	100	13.54	34.98	26.29	177	0.30
404	8.88	34.68	-	-	26.91	116	125	12.94	34.96	26.40	167	0.34
505	7.70	34.63	0.96	-	27.05	102	150	12.79	34.95	26.41	166	0.39
606	6.64	34.58	-	-	27.16	92	200	12.44	34.90	26.45	164	0.47
804	5.24	34.58	1.66	-	27.34	75	250	11.91	34.87	26.52	158	0.55
1003	4.44	34.58	-	-	27.43	66	300	11.17	34.83	26.63	149	0.63
1194	3.59	34.60	2.13	-	27.53	56	400	8.97	34.69	26.90	124	0.76
							500	7.74	34.63	27.04	111	0.88
							600	6.70	34.58	27.15	101	0.99
							700	5.88	34.57	27.25	92	1.08
							800	5.26	34.58	27.33	85	1.17
							1000	4.45	34.58	27.43	76	1.33

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL
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EASTROPIC

HUGH M. SMITH; November 7, 1955; 0339 GCT; 1°32'S, 120°05'W; wind, 150°, force 4; weather, missing; sea, slight; wire angle, 38°; BT slide, 406.

92

0	21.87	34.90	4.84	0.70	24.20	373	0	21.87	34.90	24.20	373	0.00
26	21.68	34.90	4.86	1.03	24.25	368	10	21.80	34.90	24.22	372	0.04
57	15.20	35.01	1.60	2.04	25.95	206	20	21.72	34.90	24.24	370	0.07
95	13.03	34.96	0.93	1.96	26.37	166	30	20.92	34.92	24.47	348	0.11
145	12.43	34.92	0.85	-	26.46	158	50	16.78	34.99	25.57	244	0.17
192	12.14	34.88	1.00	-	26.49	155	75	13.68	35.00	26.27	178	0.22
288	11.66	34.87	1.04	-	26.57	148	100	12.91	34.96	26.40	167	0.27
390	9.49	34.74	-	-	26.85	121	125	12.50	34.93	26.46	161	0.31
489	7.58	34.63	1.04	-	27.07	101	150	12.39	34.92	26.47	161	0.35
587	6.47	34.58	-	-	27.18	89	200	12.13	34.88	26.49	160	0.43
781	5.11	34.56	1.60	-	27.34	75	250	11.93	34.88	26.52	158	0.51
979	4.10	34.56	-	-	27.45	64	300	11.44	34.86	26.60	152	0.58
							400	9.27	34.73	26.88	126	0.72
							500	7.43	34.62	27.08	107	0.84
							600	6.36	34.58	27.19	97	0.94
							700	5.59	34.56	27.28	89	1.03
							800	5.01	34.56	27.35	83	1.12

HUGH M. SMITH; November 7, 1955; 1627 GCT; 0°11'S, 119°58'W; wind, 130°, force 4; weather, clear; sea, slight; wire angle, 08°; BT slide, 412.

94

0	20.36	34.94	4.27	1.34	24.64	331	0	20.36	34.94	24.64	331	0.00
29	17.92	35.16	3.55	1.57	25.43	256	10	19.52	35.02	24.92	305	0.03
54	15.24	35.05	3.14	1.32	25.98	204	20	18.68	35.09	25.19	279	0.06
79	14.38	34.99	3.04	1.60	26.12	190	30	17.80	35.16	25.46	254	0.09
119	13.03	34.96	2.75	1.34	26.37	166	50	15.63	35.08	25.91	212	0.13
173	12.24	34.88	2.18	-	26.47	157	75	14.46	35.00	26.11	194	0.18
219	11.84	34.85	1.48	-	26.52	152	100	13.63	34.97	26.26	180	0.23
327	10.86	34.78	-	-	26.65	140	125	12.90	34.95	26.39	168	0.27
442	8.68	34.69	0.58	-	26.95	112	150	12.48	34.91	26.45	163	0.32
550	7.66	34.63	-	-	27.05	102	200	11.99	34.86	26.50	159	0.40
658	6.24	34.56	1.43	-	27.20	88	250	11.61	34.83	26.55	156	0.48
868	5.09	34.56	-	-	27.34	74	300	11.16	34.80	26.61	151	0.55
1077	4.12	34.58	1.92	-	27.46	63	400	9.48	34.72	26.84	130	0.69
							500	8.10	34.66	27.01	115	0.81
							600	6.99	34.60	27.12	104	0.92
							700	5.92	34.55	27.23	94	1.02
							800	5.34	34.55	27.30	88	1.11
							1000	4.48	34.57	27.42	77	1.28

HUGH M. SMITH; November 8, 1955; 0325, 0340 GCT; 1°06'N, 120°00'W; wind, 110°, force 3; weather, cloudy; sea, slight; wire angle, 28°, 30°; BT slide, 417.

95

0	20.64	34.92	4.54	1.06	24.55	340	0	20.64	34.92	24.55	340	0.00
							10	20.48	34.91	24.58	337	0.03
37	20.06	34.87	4.37	1.10	24.67	329	20	20.33	34.89	24.61	334	0.07
53	19.77	34.78	4.31	1.29	24.67	328	30	20.17	34.88	24.64	332	0.10
65	18.25	34.78	3.37	1.46	25.06	291	50	19.90	34.80	24.65	332	0.17
90	14.16	34.92	1.72	1.86	26.11	191	75	16.54	34.83	25.51	250	0.24
136	13.07	34.92	1.34	-	26.34	170	100	13.54	34.94	26.25	180	0.29
181	12.62	34.90	1.53	-	26.41	163	125	12.92	34.94	26.38	169	0.34
272	12.04	34.87	-	-	26.50	154	150	12.89	34.92	26.37	171	0.38
369	10.32	34.74	0.86	-	26.71	134	200	12.52	34.90	26.43	166	0.46
462	8.93	34.67	-	-	26.89	117	250	12.21	34.88	26.48	163	0.55
554	7.54	34.60	0.93	-	27.05	102	300	11.59	34.84	26.56	156	0.63
740	5.80	34.54	-	-	27.24	84	400	9.84	34.71	26.77	136	0.77
932	4.73	34.52	1.85	-	27.35	74	500	8.34	34.64	26.96	120	0.90
							600	7.01	34.58	27.11	106	1.01
							700	6.08	34.55	27.21	97	1.11
							800	5.47	34.53	27.27	91	1.21

HBL

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EASTROPIC

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δT	Z	T	S	σ_t	δT	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

97

HUGH M. SMITH; November 8, 1955; 1635 GCT; 2°44'N, 120°02'W; wind, 150°, force 4; weather, cloudy; sea, slight; wire angle, 22°; BT slide, 423.

0	20.80	34.58	4.79	1.05	24.25	368	0	20.80	34.58	24.25	368	0.00
26	20.60	34.65	4.65	1.18	24.36	358	10	20.72	34.61	24.29	365	0.04
54	20.08	34.83	4.58	-	24.63	332	20	20.65	34.63	24.33	361	0.07
69	19.94	34.83	4.56	1.24	24.67	328	30	20.53	34.68	24.40	355	0.11
86	19.38	34.85	4.55	-	24.83	310	50	20.15	34.81	24.59	337	0.18
104	14.08	34.85	1.57	-	26.07	195	75	20.01	34.84	24.65	332	0.26
121	13.46	34.94	1.41	-	26.27	176	100	15.26	34.85	25.81	222	0.33
181	12.66	34.92	-	-	26.42	162	125	13.37	34.95	26.29	177	0.38
245	11.82	34.87	0.78	-	26.54	150	150	12.94	34.96	26.40	168	0.42
306	10.96	34.81	-	-	26.65	139	200	12.41	34.91	26.46	163	0.50
368	9.97	34.76	1.10	-	26.79	126	250	11.75	34.86	26.55	156	0.59
493	8.20	34.67	-	-	27.01	106	300	11.05	34.82	26.64	148	0.66
623	6.85	34.60	0.69	-	27.15	93	400	9.48	34.74	26.85	129	0.80
							500	8.13	34.67	27.01	114	0.92
							600	7.09	34.61	27.12	105	1.03

108

HUGH M. SMITH; November 9, 1955; 1633 GCT; 4°32'N, 119°49'W; wind, 140°, force 4; weather, cloudy; sea, moderate; wire angle, 35°; BT slide, 457.

0	24.82	34.47	4.77	1.02	23.02	486	0	24.82	34.47	23.02	486	0.00
11	24.82	34.47	4.81	0.38	23.02	486	10	24.82	34.47	23.02	486	0.05
22	24.81	34.47	4.70	0.33	23.02	486	20	24.82	34.47	23.02	487	0.10
47	23.63	34.38	4.67	0.44	23.30	458	30	24.49	34.44	23.10	479	0.15
80	23.00	34.38	4.68	0.60	23.48	441	50	23.57	34.37	23.31	459	0.24
121	20.62	34.67	4.45	-	24.37	357	75	23.10	34.37	23.45	447	0.35
161	14.74	34.70	1.22	-	25.82	219	100	22.18	34.52	23.82	413	0.46
242	10.71	34.67	-	-	26.59	146	125	20.05	34.68	24.52	346	0.56
327	9.68	34.70	1.26	-	26.79	127	150	16.40	34.71	25.45	259	0.63
409	9.13	34.67	-	-	26.86	120	200	11.96	34.69	26.38	171	0.74
491	8.40	34.65	0.47	-	26.96	111	250	10.53	34.67	26.62	148	0.82
655	6.60	34.56	-	-	27.15	93	300	9.80	34.69	26.76	136	0.89
823	5.28	34.54	1.24	-	27.30	78	400	9.18	34.67	26.85	128	1.02
							500	8.30	34.64	26.97	119	1.14
							600	7.20	34.59	27.09	108	1.26
							700	6.25	34.56	27.19	98	1.36
							800	5.46	34.54	27.28	90	1.45

109

HUGH M. SMITH; November 10, 1955; 0323 GCT; 5°52'N, 119°53'W; wind, 150°, force 3; weather, missing; sea, slight; wire angle, 28°; BT slide, 463.

0	25.58	34.61	4.67	0.37	22.89	498	0	25.58	34.61	22.89	498	0.00
44	25.58	34.63	4.70	0.50	22.91	496	10	25.58	34.62	22.89	498	0.05
61	25.58	34.60	4.66	-	22.88	499	20	25.58	34.62	22.90	498	0.10
82	25.56	34.61	4.64	0.54	22.90	497	30	25.58	34.62	22.90	498	0.15
99	24.77	34.65	4.58	0.46	23.17	471	50	25.58	34.62	22.90	499	0.25
136	17.16	34.72	2.27	-	25.28	270	75	25.57	34.60	22.89	501	0.37
181	12.58	34.79	0.56	-	26.33	170	100	24.59	34.65	23.22	470	0.50
273	10.87	34.70	-	-	26.58	146	125	19.66	34.70	24.64	335	
367	9.50	34.67	0.53	-	26.80	126	150	15.33	34.75	25.72	232	0.67
460	8.62	34.63	-	-	26.91	116	200	11.79	34.78	26.48	161	0.77
551	7.70	34.58	0.23	-	27.01	106	250	10.80	34.73	26.62	148	0.85
732	5.96	34.52	-	-	27.20	88	300	10.43	34.69	26.65	146	0.92
918	4.82	34.54	0.98	-	27.35	73	400	9.16	34.66	26.84	130	1.06
							500	8.22	34.61	26.95	120	1.19
							600	7.19	34.56	27.06	110	1.30
							700	6.24	34.53	27.17	100	1.41
							800	5.54	34.53	27.26	92	1.51

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

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HUGH M. SMITH; November 18, 1955; 0532 GCT; 5°41'N, 139°15'W; wind, 120°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°; BT slide, 551.

133

0	26.47	34.72	4.60	0.37	22.70	516	0	26.47	34.72	22.70	516	0.00
29	26.44	34.72	4.64	0.33	22.71	516	10	26.46	34.72	22.70	516	0.05
49	25.62	34.83	4.60	-	23.04	483	20	26.45	34.72	22.70	517	0.10
97	21.16	34.81	3.58	-	24.33	361	30	26.41	34.72	22.72	516	0.15
146	14.07	34.65	1.59	-	25.92	209	50	25.56	34.83	23.07	483	0.25
200	11.05	34.74	0.72	-	26.58	146	75	23.58	34.85	23.68	426	0.37
297	9.72	34.69	1.03	-	26.78	128	100	20.70	34.80	24.44	354	0.47
398	8.94	34.67	-	-	26.89	117	125	17.01	34.71	25.31	271	0.54
495	7.96	34.61	0.54	-	26.99	107	150	13.73	34.65	25.99	206	0.60
597	7.00	34.56	-	-	27.09	98	200	11.05	34.74	26.58	151	0.69
795	5.37	34.54	0.91	-	27.29	79	250	10.00	34.73	26.76	135	0.76
986	4.42	34.56	-	-	27.41	68	300	9.69	34.69	26.78	134	0.83
1180	3.80	34.58	1.54	-	27.49	60	400	8.92	34.67	26.89	125	0.96
							500	7.91	34.61	27.00	116	1.08
							600	6.97	34.56	27.10	107	1.19
							700	6.09	34.54	27.20	97	1.29
							800	5.34	34.54	27.29	88	1.39
							1000	4.38	34.56	27.42	77	1.55

HUGH M. SMITH; November 18, 1955; 1725 GCT; 4°35'N, 139°14'W; wind, 130°, force 5; weather, cloudy; sea, moderate; wire angle, 22°; BT slide, 556.

135

0	26.08	34.88	4.66	0.42	22.94	493	0	26.08	34.88	22.94	493	0.00
49	26.11	34.90	4.65	0.47	22.95	493	10	26.09	34.88	22.94	494	0.05
71	24.92	34.88	4.66	-	23.30	459	20	26.09	34.89	22.94	494	0.10
98	22.41	34.87	3.84	-	24.02	390	30	26.10	34.89	22.94	494	0.15
146	14.72	34.69	1.86	-	25.81	219	50	26.07	34.90	22.96	494	0.25
195	10.72	34.69	1.26	-	26.60	144	75	24.63	34.88	23.38	454	0.37
293	9.49	34.69	1.82	-	26.82	124	100	22.09	34.86	24.11	385	0.47
395	8.74	34.67	-	-	26.92	114	125	18.11	34.77	25.09	292	0.55
494	7.82	34.58	0.64	-	26.99	108	150	14.28	34.69	25.90	215	0.62
593	6.82	34.54	-	-	27.10	97	200	10.54	34.69	26.64	146	0.71
786	5.33	34.54	1.03	-	27.29	79	250	9.44	34.69	26.82	128	0.78
982	4.37	34.56	-	-	27.42	67	300	9.43	34.69	26.83	129	0.84
1171	3.84	34.56	1.68	-	27.47	62	400	8.70	34.67	26.92	121	0.97
							500	7.76	34.58	27.00	115	1.09
							600	6.76	34.54	27.11	105	1.20
							700	5.92	34.53	27.21	96	1.30
							800	5.25	34.54	27.30	87	1.39
							1000	4.32	34.56	27.42	76	1.55

HUGH M. SMITH; November 19, 1955; 0430 GCT; 3°31'N, 139°15'W; wind, 120°, force 5; weather, distant precipitation; sea, moderate; wire angle, 36°; BT slide, 561.

136

0	24.63	34.81	4.77	0.64	23.33	456	0	24.63	34.81	23.33	456	0.00
49	24.65	34.88	4.71	0.66	23.38	451	10	24.63	34.82	23.34	455	0.05
72	23.99	34.88	4.64	-	23.57	433	20	24.64	34.84	23.35	455	0.09
99	21.81	34.92	4.00	-	24.23	370	30	24.64	34.85	23.36	454	0.14
122	21.08	34.90	3.79	-	24.42	353	50	24.64	34.88	23.38	453	0.23
149	14.78	34.67	2.02	-	25.78	222	75	23.75	34.88	23.65	428	0.34
199	10.78	34.61	1.72	-	26.53	147	100	21.81	34.92	24.23	374	0.44
299	9.53	34.69	-	-	26.81	125	125	20.45	34.88	24.57	342	0.53
405	8.86	34.65	1.08	-	26.89	118	150	14.64	34.67	25.81	224	0.60
505	7.75	34.61	-	-	27.03	104	200	10.74	34.61	26.54	155	0.69
606	6.64	34.58	0.92	-	27.16	92	250	9.54	34.64	26.77	134	0.76
805	5.30	34.58	-	-	27.33	76	300	9.52	34.69	26.81	131	0.83
1006	4.30	34.58	1.63	-	27.44	65	400	8.89	34.65	26.88	125	0.96
							500	7.81	34.61	27.02	114	1.08
							600	6.70	34.58	27.15	101	1.19
							700	5.92	34.58	27.25	92	1.28
							800	5.32	34.58	27.33	86	1.37
							1000	4.33	34.58	27.44	75	1.53

HBL

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OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

139

HUGH M. SMITH; November 19, 1955; 1725 GCT; 2°27'N, 139°14'W; wind, 120°, force 5; weather, partly cloudy; sea, moderate; wire angle, 12°; BT slide, 567.

0	23.72	34.81	4.85	0.63	23.60	430	0	23.72	34.81	23.60	430	0.00
52	23.69	34.79	4.80	0.62	23.59	431	10	23.71	34.81	23.60	430	0.04
74	22.40	34.85	4.20	-	24.01	391	20	23.71	34.80	23.60	431	0.09
103	19.47	34.83	4.53	-	24.79	317	30	23.70	34.80	23.60	432	0.13
126	14.16	34.87	1.54	-	26.07	195	50	23.69	34.79	23.59	432	0.22
154	12.30	34.90	1.23	-	26.47	157	75	22.35	34.85	24.03	392	0.32
205	11.59	34.85	1.94	-	26.57	148	100	19.90	34.83	24.68	331	0.41
308	10.79	34.78	-	-	26.66	139	125	14.38	34.87	26.02	203	0.48
415	9.02	34.69	0.91	-	26.89	117	150	12.38	34.90	26.46	162	0.52
519	7.52	34.60	-	-	27.05	102	200	11.58	34.86	26.58	152	0.60
623	6.60	34.61	1.16	-	27.19	89	250	11.24	34.82	26.61	150	0.68
825	5.26	34.58	-	-	27.33	75	300	10.85	34.78	26.65	146	0.75
1028	4.30	34.60	1.83	-	27.46	63	400	9.29	34.70	26.86	128	0.89
							500	7.76	34.61	27.03	113	1.01
							600	6.77	34.60	27.16	101	1.11
							700	6.03	34.60	27.25	92	1.21
							800	5.40	34.58	27.32	86	1.30
							1000	4.43	34.60	27.44	75	1.46

141

HUGH M. SMITH; November 20, 1955; 0422, 0443 GCT; 1°18'N, 139°31'W; wind, 120°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°, 30°; BT slide, 572.

0	22.99	34.85	4.74	0.70	23.84	407	0	22.99	34.85	23.84	407	0.00
28	22.84	34.85	4.68	0.78	23.89	403	10	22.94	34.85	23.86	406	0.04
52	22.77	34.85	4.57	-	23.91	401	20	22.88	34.85	23.87	405	0.08
76	22.34	34.87	4.29	-	24.04	388	30	22.84	34.85	23.89	404	0.12
105	20.41	34.88	3.56	-	24.58	337	50	22.78	34.85	23.90	403	0.20
157	14.44	34.87	2.91	-	26.01	201	75	22.37	34.87	24.03	392	0.30
209	12.32	34.87	1.17	-	26.45	159	100	20.83	34.88	24.47	351	0.39
314	11.43	34.83	-	-	26.58	146	125	18.08	34.88	25.18	284	0.47
							150	15.23	34.87	25.84	221	0.54
406	9.29	34.70	0.97	-	26.86	120	200	12.51	34.87	26.41	168	0.63
507	7.58	34.61	-	-	27.05	102	250	11.80	34.86	26.54	156	0.72
807	5.32	34.56	1.89	-	27.31	77	300	11.47	34.84	26.58	153	0.79
1006	4.54	34.54	1.82	-	27.38	70	400	9.44	34.71	26.84	130	0.93
							500	7.68	34.62	27.04	111	1.06
							600	6.58	34.58	27.16	100	1.16
							700	5.81	34.56	27.25	92	1.26
							800	5.34	34.56	27.31	87	1.35
							1000	4.56	34.54	27.38	81	1.51

144

HUGH M. SMITH; November 20, 1955; 1738, 1825 GCT; 0°16'N, 140°11'W; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 23°, 19°; BT slide, 578.

0	22.94	35.08	4.63	0.84	24.03	389	0	22.94	35.08	24.03	389	0.00
41	22.88	35.16	4.46	0.84	24.11	381	10	22.93	35.10	24.05	388	0.04
68	22.64	35.23	4.25	-	24.23	370	20	22.91	35.12	24.07	386	0.08
100	21.62	35.32	3.72	1.03	24.59	336	30	22.90	35.14	24.09	385	0.12
127	19.35	35.16	3.25	-	25.07	290	50	22.84	35.18	24.14	381	0.19
159	14.38	35.10	3.03	-	26.20	182	75	22.53	35.26	24.29	367	0.29
200	12.30	34.92	2.71	-	26.49	155	100	21.62	35.32	24.59	340	0.37
300	11.53	34.87	-	-	26.60	145	125	19.57	35.17	25.03	299	0.45
							150	15.75	35.11	25.91	215	0.52
423	9.36	34.70	1.06	-	26.84	122	200	12.30	34.92	26.49	160	0.61
528	7.91	34.61	-	-	27.00	107	250	11.59	34.86	26.58	152	0.69
632	6.68	34.56	1.37	-	27.14	94	300	11.53	34.87	26.60	152	0.77
835	5.26	34.56	-	-	27.32	77	400	9.80	34.73	26.80	134	0.91
1040	4.34	34.54	1.98	-	27.41	68	500	8.27	34.63	26.96	119	1.04
							600	7.03	34.57	27.10	107	1.15
							700	6.10	34.55	27.21	96	1.25
							800	5.44	34.56	27.29	89	1.34
							1000	4.52	34.54	27.39	80	1.51

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

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HUGH M. SMITH; November 21, 1955; 0442 GCT; 0°57'S, 140°00'W; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 45°; BT slide, 583.

146

0	23.92	35.32	4.77	0.92	23.93	399	0	23.92	35.32	23.93	399	0.00
15	23.96	35.32	4.71	0.87	23.92	400	10	23.95	35.32	23.92	400	0.04
34	23.89	35.32	4.68	-	23.94	398	20	23.95	35.32	23.92	400	0.08
69	23.62	35.28	4.65	0.82	23.99	393	30	23.91	35.32	23.93	400	0.12
139	13.20	34.96	0.84	-	26.34	169	50	23.80	35.31	23.96	398	0.20
214	11.77	34.87	2.36	-	26.55	149	75	22.81	35.25	24.20	376	0.30
288	11.34	34.83	1.25	-	26.60	145	100	19.28	35.14	25.08	293	0.38
364	10.66	34.78	1.06	-	26.68	137	125	15.46	35.03	25.91	214	
518	7.54	34.58	1.11	-	27.03	104	150	12.64	34.94	26.43	164	0.50
687a)	6.14	34.54	1.62	-	27.19	88	200	11.62	34.88	26.58	151	0.57
							250	11.51	34.85	26.58	152	0.65
							300	11.26	34.82	26.61	151	0.73
							400	9.96	34.73	26.77	137	0.87
							500	7.92	34.60	26.99	116	1.00
							600	6.86	34.56	27.11	105	1.11

HUGH M. SMITH; November 21, 1955; 1722 GCT; 2°42'S, 139°47'W; wind, 100°, force 5; weather, cloudy; sea, moderate; wire angle, 27°; BT slide, 589.

149

0	24.04	35.34	4.78	0.61	23.91	401	0	24.04	35.34	23.91	401	0.00
47	24.03	35.32	4.79	0.76	23.90	402	10	24.04	35.34	23.90	401	0.04
64	23.82	35.28	4.73	-	23.93	399	20	24.04	35.33	23.90	402	0.08
86	21.55	35.77	4.54	-	24.95	302	30	24.03	35.33	23.90	403	0.12
111	16.48	35.23	2.17	-	25.83	218	50	24.02	35.30	23.88	405	0.20
150	13.33	34.97	0.82	-	26.32	171	75	22.95	35.54	24.38	359	0.30
188	12.67	34.94	0.74	-	26.43	161	100	18.73	35.52	25.51	252	0.37
284	11.88	34.90	-	-	26.55	149	125	14.87	35.08	26.08	198	
383	10.36	34.78	0.31	-	26.74	132	150	13.33	34.97	26.32	175	0.48
479	8.32	34.65	-	-	26.97	110	200	12.56	34.94	26.45	164	0.57
576	7.06	34.60	1.25	-	27.12	96	250	12.13	34.92	26.52	159	0.65
673	6.16	34.56	-	-	27.21	87	300	11.68	34.88	26.58	154	0.73
866	5.02	34.56	1.65	-	27.35	74	400	9.99	34.76	26.78	136	0.87
							500	8.00	34.64	27.01	115	1.00
							600	6.81	34.59	27.14	102	1.11
							700	6.00	34.56	27.23	95	1.21
							800	5.41	34.56	27.30	88	1.30

HUGH M. SMITH; November 22, 1955; 0423 GCT; 4°03'S, 139°49'W; wind, 090°, force 4; weather, partly cloudy; sea, moderate; wire angle, 21°; BT slide, 594.

151

0	24.67	35.30	4.83	0.85	23.69	422	0	24.67	35.30	23.69	422	0.00
40	24.14	35.28	4.81	0.90	23.83	408	10	24.54	35.30	23.72	419	0.04
61	23.24	35.26	4.73	-	24.08	384	20	24.40	35.29	23.76	416	0.08
88	22.77	35.26	4.44	-	24.22	371	30	24.27	35.28	23.80	412	0.13
114	18.83	35.52	3.43	-	25.48	251	50	23.71	35.27	23.95	398	0.21
144	13.74	35.01	1.03	-	26.27	176	75	23.18	35.24	24.08	387	0.30
193	12.60	34.94	0.75	-	26.44	159	100	21.19	35.40	24.77	322	0.39
290	11.62	34.88	-	-	26.59	146	125	16.80	35.36	25.86	219	0.46
392	9.92	34.76	0.24	-	26.80	126	150	13.35	34.98	26.32	175	0.51
490	8.32	34.67	-	-	26.99	108	200	12.51	34.94	26.46	163	0.59
588	6.94	34.61	1.08	-	27.14	93	250	11.96	34.90	26.54	157	0.67
687	6.08	34.58	-	-	27.23	85	300	11.47	34.87	26.61	151	0.75
893	4.78	34.58	2.06	-	27.39	70	400	9.78	34.75	26.81	133	0.89
							500	8.16	34.66	27.00	115	1.02
							600	6.82	34.60	27.15	101	1.13
							700	6.00	34.58	27.24	93	1.22
							800	5.37	34.58	27.32	86	1.31

a) Short cast because of bad splice in hydrographic wire.

HBL

HMS-31
EASTROPIC

OBSERVED					COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

153

HUGH M. SMITH; November 22, 1955; 1726 GCT; 5°31'S, 139°57'W; wind, 100°, force 5; weather, partly cloudy; sea, moderate; wire angle, 37°; BT slide, 600.

0	24.79	35.26	4.82	0.69	23.62	428	0	24.79	35.26	23.62	428	0.00
33	24.80	35.26	4.85	-	23.62	428	10	24.79	35.26	23.62	428	0.04
62	24.82	35.26	4.81	-	23.61	429	20	24.80	35.26	23.62	429	0.09
94	24.66	35.66	4.57	-	23.96	396	30	24.80	35.26	23.62	429	0.13
127	21.77	36.11	4.12	-	25.14	283	50	24.82	35.24	23.60	432	0.21
160	16.36	35.19	2.84	-	25.83	218	75	24.82	35.40	23.71	423	0.32
193	13.92	34.96	1.54	-	26.19	183	100	24.33	35.79	24.16	380	0.42
241	11.92	34.90	-	-	26.55	150	125	22.02	36.10	25.07	295	
326	10.48	34.78	0.48	-	26.72	134	150	17.98	35.50	25.68	237	0.58
407	9.58	34.74	-	-	26.84	122	200	13.54	34.94	26.26	183	0.68
490	8.42	34.67	0.61	-	26.97	110	250	11.69	34.89	26.58	153	0.77
611	6.98	34.60	-	-	27.13	94	300	10.75	34.81	26.69	142	0.84
749	5.77	34.54	1.23	-	27.24	84	400	9.65	34.74	26.83	131	0.98
							500	8.29	34.66	26.99	117	1.10
							600	7.10	34.60	27.12	105	1.22
							700	6.20	34.56	27.20	97	1.32

154

HUGH M. SMITH; November 23, 1955; 0432 GCT; 6°33'S, 139°30'W; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 22°; BT slide, 605.

0	24.77	35.30	-	0.71	23.66	424	0	24.77	35.30	23.66	424	0.00
41	24.60	35.28	4.83	-	23.69	421	10	24.73	35.30	23.67	424	0.04
77	24.50	35.62	4.54	-	23.98	394	20	24.69	35.29	23.68	424	0.08
119	22.74	36.13	4.11	-	24.88	308	30	24.65	35.28	23.68	423	0.13
152	20.64	35.79	3.79	-	25.21	277	50	24.63	35.34	23.73	419	0.21
201	14.54	35.05	1.68	-	26.13	189	75	24.52	35.60	23.96	399	0.31
241	12.20	34.94	1.80	-	26.52	152	100	23.71	35.96	24.47	351	0.41
301	10.16	34.79	-	-	26.78	128	125	22.44	36.10	24.95	307	0.49
407	8.66	34.70	1.77	-	26.96	111	150	20.80	35.82	25.19	284	0.56
508	7.90	34.65	-	-	27.03	104	200	14.66	35.06	26.11	197	0.68
609	6.81	34.60	1.98	-	27.15	92	250	11.81	34.92	26.58	153	0.77
756	5.75	34.60	-	-	27.29	79	300	10.18	34.79	26.78	134	0.84
919	4.84	34.56	2.09	-	27.37	72	400	8.71	34.70	26.95	119	0.97
							500	7.95	34.65	27.03	113	1.09
							600	6.91	34.60	27.14	103	1.19
							700	6.10	34.60	27.24	93	1.29
							800	5.50	34.59	27.31	87	1.38

OBSERVATIONS OF THE U. S. COAST AND GEODETIC SURVEY

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O ₂	σ_t	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

USCGS
USCGSS
EXPLORER

USCGSS EXPLORER; May 19, 1955; 1450, 1151, 1222, 1345 GCT; 51°24'N, 176°16'W; sounding, 2377 m; wind, 090°, force 1; weather, clear; sea, missing; wire angle, 00°, 06°, 07°, 00°.

E-1

0	4.93	32.30	8.50	25.57	0	4.93	32.30	8.50	25.57	242	0.00
5	4.83	32.32	8.28	25.59	10	4.25	32.48	8.06	25.78	222	0.23
10	4.25	32.48	8.06	25.78	20	4.22	32.87	7.90	26.09	193	0.44
20	4.22	32.87	7.90	26.09	30	4.10	32.97	7.56	26.19	184	0.63
					50	3.95	33.14	6.84	26.34	169	0.98
50	3.95	-	6.84	-	75	3.93	33.28	5.87	26.45	159	1.39
75	3.93	33.28	5.87	26.45	100	3.75	33.34	5.61	26.51	153	1.79
100	3.75	33.34	5.61	26.51	150	3.80	33.44	5.02	26.59	146	2.54
149	3.81	33.44	5.02	26.59	200	3.71	33.49	4.96	26.64	141	3.26
					250	3.97	33.63	3.61	26.72	133	3.95
198	3.70	33.48	5.02	26.63	300	4.08	33.76	2.64	26.81	125	4.61
248	3.96	33.63	3.65	26.72	400	4.04	34.00	1.15	27.01	106	5.79
298	4.08	33.75	2.68	26.81	500	3.87	34.08	0.71	27.09	98	6.84
397	4.05	34.00	1.17	27.01	600	3.72	34.19	0.55	27.19	89	7.82
					800	3.35	34.32	0.46	27.33	75	9.56
491	3.89	34.07	0.72	27.08	1000	3.02	34.38	0.45	27.41	68	11.12
589	3.73	34.18	0.59	27.18	1200	2.71	34.46	0.50	27.50	59	12.52
687	3.59	34.23	0.38	27.24	1500	2.29	34.55	0.80	27.61	49	14.36
785	3.38	34.32	0.46	27.33							
980	3.05	34.37	0.45	27.40							
1175	2.75	34.45	0.48	27.49							
1467	2.33	34.54	0.76	27.60							
1956	1.92	34.65	1.44	27.72							

USCGSS EXPLORER; June 9, 1955; 0918, 0943, 1011, 1105 GCT; 52°06'N, 176°38'W; sounding, 2368 m; wind, 160°, force 3; weather, missing; sea, calm; wire angle, 00°, 00°, 00°, 16°.

E-2

1	4.62	33.18	6.88	26.30	0	(4.62)	(33.18)	(6.88)	(26.30)	(173)	(0.00)
5	4.62	33.18	6.85	26.30	10	4.60	33.19	6.53	26.31	172	0.17
10	4.60	33.19	6.53	26.31	20	4.35	33.19	6.34	26.33	170	0.34
20	4.35	33.19	6.34	26.33	30	4.32	33.21	6.89	26.35	168	0.51
30	4.32	33.21	6.89	26.35	50	4.05	33.28	5.94	26.44	160	0.84
					75	3.98	33.30	5.07	26.46	158	1.24
50	4.05	33.28	-	26.44	100	3.88	33.36	4.87	26.52	152	1.63
75	3.98	33.30	5.07	26.46	150	3.80	33.48	4.59	26.62	143	2.37
100	3.88	33.36	-	26.52	200	3.71	33.46	4.48	26.61	144	3.09
150	3.80	33.48	4.59	26.62	250	3.72	33.65	3.91	26.76	129	3.78
					300	3.78	33.65	3.40	26.76	129	4.44
200	3.71	33.46	4.48	26.61	400	3.79	33.87	1.92	26.93	113	5.68
250	3.72	33.65	3.91	26.76	500	3.56	34.12	0.81	27.15	92	6.74
300	3.78	33.65	3.40	26.76	600	3.37	34.18	0.77	27.22	86	7.67
400	3.79	33.87	1.92	26.93	800	3.07	34.28	0.57	27.33	75	9.39
					1000	2.80	34.37	0.60	27.42	67	10.92
478	3.61	34.11	0.81	27.14	1200	2.53	34.43	0.65	27.49	60	12.32
574	3.42	34.16	0.81	27.20	1500	2.20	34.50	0.74	27.58	52	14.20
670	3.43u	34.22	0.67	27.24							
767	3.11	34.26	0.56	27.31							
959	2.86	34.36	0.59	27.41							
1153	2.59	34.52u	0.64	27.56							
1443	2.25	34.49	0.71	27.57							
1929	1.91	34.58	1.22	27.66							

USCGS USCGSS EXPLORER	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	δ _T cl/ton	ΔD dyn m

E-4

USCGSS EXPLORER; September 10, 1955; 0912, 1152, 0935, 1001, 1054 GCT; 52°15'N, 176°04'W; sounding, 2286 m; wind, 320°, force 3; weather, cloudy; sea, slight; wire angle, 00°, 03°, 03°, 04°, 03°.

0	8.38	33.15		25.79	0	8.38	33.15		25.79	222	0.00
5	8.37	33.14		25.78	10	8.36	33.13		25.77	223	0.22
10	8.36	33.13		25.77	20	8.35	33.12		25.77	223	0.45
20	8.35	33.12		25.77	30	8.27	33.13		25.79	222	0.67
30	8.27	33.13		25.79	50	4.78	33.29		26.37	166	1.06
					75	4.24	33.37		26.49	155	1.46
40	5.51	33.23		26.24	100	4.02	33.37		26.51	153	1.85
45	4.91	33.28		26.35	150	3.62	33.41		26.58	147	2.60
50	6.08u	33.20u		26.14	200	3.63	33.49		26.65	140	3.32
60	4.56	33.31		26.41	250	3.70	33.57		26.70	135	4.02
65	4.47	33.28u		26.39	300	3.81	33.70		26.79	127	4.68
					400	3.66	33.90		26.97	110	5.89
75	4.24	33.37		26.49	500	3.53	33.99		27.05	102	6.98
100	4.02	33.37		26.51	600	3.37	34.12		27.17	91	7.98
150	3.62	33.41		26.58	800	3.09	34.26		27.31	77	9.76
					1000	2.82	34.35		27.40	69	11.33
200	3.63	33.49		26.65	1200	2.57	34.43		27.49	60	12.74
250	3.70	33.57		26.70	1500	2.20	34.49		27.57	53	14.64
300	3.81	33.70		26.79							
400	3.66	33.90		26.97							
499	3.53	33.99		27.05							
599	3.37	34.12		27.17							
698	3.23	34.22		27.26							
798	3.09	34.26		27.31							
998	4.45u	34.35		27.24							
1197	2.57	34.43		27.49							
1497	2.20	34.49		27.57							
1996	1.85	34.59		27.68							

OBSERVATIONS OF THE U. S. NAVY HYDROGRAPHIC OFFICE

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O ₂	σ_t	Z	T	S	O ₂	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

 USHO
 USCGC
 NORTHWIND

USCGC NORTHWIND; March 6, 1955; 0700 GCT; 57°53'N, 168°50'W; sounding, 62 m; wind, 020°, force 6; weather, slight fall of snowflakes; sea, slight.

1

0	0.6	32.45	3.81	26.04	0	0.60	32.45	3.81	26.04	198	0.00
10	0.67	32.43	2.66	26.02	10	0.67	32.43	2.66	26.02	199	0.02
20	0.74	32.43	2.21u	26.02	20	0.74	32.43	2.57	26.02	200	0.04
30	0.64	32.47	2.51	26.06	30	0.64	32.47	2.51	26.06	196	0.06
50	0.68	32.48	2.52	26.06	50	0.68	32.48	2.52	26.06	196	0.10

USCGC NORTHWIND; March 7, 1955; 0000 GCT; 58°02'N, 168°56'W; sounding, 62 m; wind, 360°, force 4; weather, partly cloudy; sea, missing.

2

0	-1.4	31.85	2.23	25.64	0	-1.40	31.85	2.23	25.64	236	0.00
10	-1.35	31.92	2.25	25.69	10	-1.35	31.92	2.25	25.69	231	0.02
20	-0.72	32.29	1.93	25.97	20	-0.72	32.29	1.93	25.97	204	0.04
30	-0.22	32.30	1.44u	25.96	30	-0.22	32.30	1.91	25.96	205	0.07
40	-0.12	32.30	1.90	25.96	50	-0.21	32.24	2.53	25.91	210	0.11
50	-0.21	31.98u	2.53	25.70							
55	-0.07	32.18	2.41u	25.86							

USCGC NORTHWIND; March 8, 1955; 0100 GCT; 58°50'N, 168°29'W; sounding, 42 m; wind, 160°, force 2; weather, cloudy; sea, missing.

3

0	-1.85	31.98	-	25.75	0	-1.85	31.98		25.75	225	0.00
10	-1.68	31.74	-	25.55	10	-1.68	31.74		25.55	244	0.02
20	-1.70	31.78	2.17	25.59	20	-1.70	31.78	2.17	25.59	241	0.05
30	-1.73	31.74	2.01	25.55	30	-1.73	31.74	2.01	25.55	244	0.07
35	-1.70	31.76	-	25.57							

USCGC NORTHWIND; March 8, 1955; 0800 GCT; 59°17'N, 169°31'W; sounding, 47 m; wind, 020°, force 6; weather, overcast; sea, missing.

4

0	-1.68	31.76	2.59	25.57	0	-1.68	31.76	2.59	25.57	243	0.00
10	-1.71	31.80	2.63	25.60	10	-1.71	31.80	2.63	25.60	239	0.02
20	-1.72	31.78	2.09u	25.59	20	-1.72	31.78	2.49	25.59	241	0.05
30	-1.74	31.74	2.15	25.55	30	-1.74	31.74	2.15	25.55	244	0.07
40	-1.73	31.78	2.73u	25.59							

USCGC NORTHWIND; March 9, 1955; 0000 GCT; 59°51'N, 171°19'W; sounding, 71 m; wind, 220°, force 5; weather, fog; sea, high.

5

0	-1.73	31.64	2.26	25.47	0	-1.73	31.64	2.26	25.47	252	0.00
10	-1.72	31.67	1.84	25.50	10	-1.72	31.67	1.84	25.50	249	0.02
20	-1.74	31.78	2.12	25.59	20	-1.74	31.78	2.12	25.59	241	0.05
40	-	31.76	2.06	-	30	-1.74	31.76	2.09	25.57	242	0.07
60	-1.68	31.74	1.93	25.55	50	-1.71	31.75	2.00	25.56	243	0.12

USCGC NORTHWIND; March 9, 1955; 0600 GCT; 60°11'N, 173°22'W; sounding, 42 m; wind, 320°, force 4; weather, fog; sea, rough.

6

0	-1.70	31.89	2.65	25.67	0	-1.70	31.89	2.65	25.67	233	0.00
10	-1.72	31.82	2.82	25.62	10	-1.72	31.82	2.82	25.62	238	0.02
20	-1.75	31.85	2.09	25.64	20	-1.75	31.85	2.09	25.64	235	0.05
30	-1.79	31.89	1.68	25.68	30	-1.79	31.89	1.68	25.68	232	0.07
40	-1.71	31.85	1.94	25.64							

USCGC NORTHWIND; March 9, 1955; 1500 GCT; 61°06'N, 174°15'W; sounding, 86 m; wind, 320°, force 5; weather, slight or moderate drifting snow; sea, missing.

7

0	-1.72	32.07	1.90	25.82	0	-1.72	32.07	1.90	25.82	219	0.00
10	-1.74	32.09	2.54	25.84	10	-1.74	32.09	2.54	25.84	217	0.02
20	-1.76	32.05	2.10	25.81	20	-1.76	32.05	2.10	25.81	220	0.04
50	-1.83	32.20	2.09	25.93	30	-1.79	32.14	2.10	25.88	213	0.06
80	-1.72	32.03	2.25	25.79	50	-1.83	32.20	2.09	25.93	208	0.11
					75	-1.76	32.06	2.22	25.81	219	0.16

USHO USCGC NORTHWIND	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	δ cl/ton	ΔD dyn m
8	USCGC NORTHWIND; March 9, 1955; 2300 GCT; 61°29'N, 175°00'W; sounding, 78 m; wind, 270°, force 4; weather, partly cloudy; sea, missing.											
	0	-1.72	32.21	2.00u	25.93	0	-1.72	32.21	2.00	25.93	208	0.00
	10	-1.72	32.23	2.00	25.95	10	-1.72	32.23	2.00	25.95	206	0.02
	20	-1.77	32.18	2.00	25.91	20	-1.77	32.18	2.00	25.91	210	0.04
	50	-1.80	32.18	1.83	25.91	30	-1.79	32.18	1.96	25.91	210	0.06
	70	-1.72	32.45	1.82	26.13	50	-1.80	32.18	1.83	25.91	210	0.10
9	USCGC NORTHWIND; March 10, 1955; 0300 GCT; 61°37'N, 172°56'W; sounding, 65 m; wind, 270°, force 3; weather, partly cloudy; sea, missing.											
	0	-1.66	31.46	1.79	25.33	0	-1.66	31.46	1.79	25.33	266	0.00
	10	-1.67	31.53	2.05	25.38	10	-1.67	31.53	2.05	25.38	260	0.03
	20	-1.72	31.69	2.03	25.51	20	-1.72	31.69	2.03	25.51	248	0.05
	40	-1.77	31.58	1.89	25.42	30	-1.77	31.64	1.96	25.47	251	0.08
	60	-1.66	31.49	1.93	25.35	50	-1.70	31.53	1.91	25.38	260	0.13
10	USCGC NORTHWIND; March 10, 1955; 1100 GCT; 61°47'N, 170°53'W; sounding, 43 m; wind, 340°, force 4; weather, partly cloudy; sea, missing.											
	0	-1.67	31.40	2.22	25.28	0	-1.67	31.40	2.22	25.28	270	0.00
	10	-1.67	31.40	2.42	25.28	10	-1.67	31.40	2.42	25.28	270	0.03
	20	-1.71	34.96u	1.54	28.16	20	-1.71	31.64	1.54	25.47	252	0.05
	30	-1.74	31.64	2.25	25.47	30	-1.74	31.64	2.25	25.47	251	0.08
	40	-1.69	31.40	1.83	25.28							
11	USCGC NORTHWIND; March 12, 1955; 0300 GCT; 61°49'N, 168°27'W; sounding, 31 m; wind, 110°, force 4; weather, overcast; sea, missing.											
	0	-1.66	31.85	1.95u	25.64	0	-1.66	31.85		25.64	236	0.00
	10	-1.72u	31.89	2.03	25.68	10	-1.74	31.89	2.03	25.68	232	0.02
	20	-1.77	31.83	-	25.63	20	-1.77	31.83		25.63	237	0.05
12	USCGC NORTHWIND; March 13, 1955; 2200 GCT; 62°08'N, 167°37'W; sounding, 18 m; wind, 140°, force 6; weather, slight or moderate drifting snow; sea, missing.											
	0	-1.73	32.52	1.93	26.19	0	-1.73	32.52	1.93	26.19	184	0.00
	10	-1.78	32.54	1.77	26.20	10	-1.78	32.54	1.77	26.20	182	0.02
	15	-1.74	32.56	1.99	26.22							
13	USCGC NORTHWIND; March 15, 1955; 0700 GCT; 63°04'N, 166°06'W; sounding, 12 m; wind, 140°, force 2; weather, cloudy; sea, missing.											
	0	-1.72	32.43	1.91u	26.11	0	-1.72	32.43		26.11	191	0.00
	10	-1.77	32.45	1.94	26.13	10	-1.77	32.45	1.94	26.13	189	0.02
14	USCGC NORTHWIND; March 17, 1955; 0600 GCT; 63°52'N, 165°50'W; sounding, 16 m; wind, 250°, force 3; weather, intermittent slight fall of snowflakes; sea, missing.											
	0	-1.70	32.56	1.72	26.22	0	-1.70	32.56	1.72	26.22	181	0.00
	10	-1.77	32.45	2.05	26.13	10	-1.77	32.45	2.05	26.13	189	0.02
15	USCGC NORTHWIND; March 23, 1955; 0600 GCT; 63°58'N, 166°12'W; sounding, 31 m; wind, calm; weather, cloudy; sea, missing.											
	0	-1.83	32.54	1.60	26.20	0	-1.83	32.54	1.60	26.20	182	0.00
	10	-1.77	32.50	-	26.17	10	-1.77	32.50	1.81	26.17	185	0.02
	20	-1.77	32.50	2.03	26.17	20	-1.77	32.50	2.03	26.17	185	0.04
	30	-1.74	32.56	2.26	26.22	30	-1.74	32.56	2.06	26.22	181	0.06
16	USCGC NORTHWIND; March 24, 1955; 0200 GCT; 63°51'N, 166°18'W; sounding, 37 m; wind, 040°, force 3; weather, clear; sea, missing.											
	0	-1.70	32.50	2.30	26.17	0	-1.70	32.50	2.30	26.17	186	0.00
	10	-1.76	32.52	1.91	26.19	10	-1.76	32.52	1.91	26.19	184	0.02
	20	-1.78	32.45	1.83	26.13	20	-1.78	32.45	1.83	26.13	189	0.04
	30	-1.77	32.43	2.19	26.11	30	-1.77	32.43	2.19	26.11	191	0.06

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O ₂	σ _t	Z	T	S	O ₂	σ _t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

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NORTHWIND

USCGC NORTHWIND; March 24, 1955; 2100 GCT; 63°52'N, 166°15'W; sounding, 36 m; wind, 070°, force 4; weather, cloudy; sea, missing.

17

0	-1.76	32.56	2.07	26.22	0	-1.76	32.56	2.07	26.22	181	0.00
10	-1.73	32.56	1.99u	26.22	10	-1.73	32.56	2.02	26.22	181	0.02
20	-1.76	32.54	1.98	26.20	20	-1.76	32.54	1.98	26.20	182	0.04
30	-1.77	32.56	2.06	26.22	30	-1.77	32.56	2.06	26.22	181	0.05

USCGC NORTHWIND; March 25, 1955; 1000 GCT; 63°52'N, 166°15'W; sounding, missing; wind, 040°, force 4; weather, partly cloudy; sea, missing.

18

0	-1.76	32.54	2.24	26.20	0	-1.76	32.54	2.24	26.20	182	0.00
10	-1.79	32.54	2.40	26.20	10	-1.79	32.54	2.40	26.20	182	0.02
20	-1.81	32.56	2.43	26.22	20	-1.81	32.56	2.43	26.22	181	0.04
30	-1.77	32.54	2.38	26.20	30	-1.77	32.54	2.38	26.20	182	0.05

USCGC NORTHWIND; March 25, 1955; 2100 GCT; 63°50'N, 166°14'W; sounding, missing; wind, 360°, force 3; weather, partly cloudy; sea, missing.

19

0	-1.68	32.52	2.96	26.18	0	-1.68	32.52	2.96	26.18	184	0.00
10	-1.77	32.56	2.63	26.22	10	-1.77	32.56	2.63	26.22	181	0.02
20	-1.76	32.52	2.71	26.19	20	-1.76	32.52	2.71	26.19	184	0.04
30	-1.77	32.54	2.63u	26.20	30	-1.77	32.54		26.20	182	0.06

USCGC NORTHWIND; March 26, 1955; 2200 GCT; 63°57'N, 166°14'W; sounding, 27 m; wind, 340°, force 5; weather, cloudy; sea, missing.

20

0	-1.75	32.50	3.30	26.17	0	-1.75	32.50	3.30	26.17	185	0.00
10	-1.77	32.48	3.96	26.15	10	-1.77	32.48	3.96	26.15	187	0.02
15	-1.75	32.48	3.63	26.15	20	-1.77	32.50	5.55	26.17	185	0.04
20	-1.77	32.50	5.55	26.17							

USCGC NORTHWIND; March 27, 1955; 2100 GCT; 63°57'N, 166°12'W; sounding, 28 m; wind, 340°, force 4; weather, partly cloudy; sea, missing.

21

0	-1.70	32.34	2.45	26.04	0	-1.70	32.34	2.45	26.04	198	0.00
10	-1.73	32.36	2.91	26.06	10	-1.73	32.36	2.91	26.06	196	0.02
20	-1.81	32.38	-	26.07	20	-1.81	32.38	2.36	26.07	194	0.04
25	-1.77	32.36	2.09	26.06							

USCGC NORTHWIND; March 28, 1955; 2100 GCT; 63°50'N, 166°08'W; sounding, 28 m; wind, 140°, force 2; weather, intermittent slight fall of snowflakes; sea, missing.

22

0	-1.74	32.38		26.07	0	-1.74	32.38		26.07	195	0.00
10	-1.76	32.38		26.07	10	-1.76	32.38		26.07	195	0.02
20	-1.80	32.45		26.13	20	-1.80	32.45		26.13	189	0.04
25	-1.77	32.45		26.13							

USCGC NORTHWIND; March 29, 1955; 2100 GCT; 63°55'N, 166°12'W; sounding, 28 m; wind, 220°, force 1; weather, partly cloudy; sea, missing.

23

0	-1.62	32.32	5.97	26.02	0	-1.62	32.32	5.97	26.02	200	0.00
10	-1.78	32.41	6.78	26.10	10	-1.78	32.41	6.78	26.10	192	0.02
20	-1.80	32.45	5.69	26.13	20	-1.80	32.45	5.69	26.13	189	0.04
25	-1.75	32.45	-	26.13							

USCGC NORTHWIND; March 30, 1955; 2100 GCT; 63°54'N, 166°09'W; sounding, 28 m; wind, 320°, force 3; weather, partly cloudy; sea, missing.

24

0	-1.71	32.36		26.06	0	-1.71	32.36		26.06	196	0.00
10	-1.77	32.39		26.08	10	-1.77	32.39		26.08	194	0.02
20	-1.77	32.41		26.10	20	-1.77	32.41		26.10	192	0.04
25	-1.76	32.43		26.11							

USCGC NORTHWIND; April 1, 1955; 2100 GCT; 63°31'N, 165°51'W; sounding, 23 m; wind, 040°, force 4; weather, partly cloudy; sea, missing.

25

0	-1.64	32.39	6.43	26.08	0	-1.64	32.39	6.43	26.08	194	0.00
10	-1.77	32.43	-	26.11	10	-1.77	32.43		26.11	191	0.02
15	-1.78	32.39	-	26.08	20	-1.81	32.39	3.77	26.08	194	0.04
20	-1.81	32.39	3.77	26.08							

USHO USCGC NORTHWIND	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	Z m	T °C	S ‰	O ₂ ml/L	σ _t g/L	δ cl/ton	ΔD dyn m
26	USCGC NORTHWIND; April 4, 1955; 0000 GCT; 63°55'N, 165°58'W; sounding, 23 m; wind, 070°, force 3; weather, clear; sea, missing.											
	0	-1.73	32.36	7.69	26.06	0	-1.73	32.36	7.69	26.06	196	0.00
	10	-1.75	32.38	-	26.07	10	-1.75	32.38	6.51	26.07	195	0.02
	15	-1.75	32.41	5.84	26.10	20	-1.76	32.41	6.39	26.10	192	0.04
	20	-1.76	32.41	6.39	26.10							
27	USCGC NORTHWIND; April 5, 1955; 2100 GCT; 63°07'N, 166°02'W; sounding, 22 m; wind, 360°, force 4; weather, partly cloudy; sea, missing.											
	0	-1.72	32.47	-	26.14	0	-1.72	32.47		26.14	188	0.00
	10	-1.78	32.45	7.74	26.13	10	-1.78	32.45	7.74	26.13	189	0.02
	15	-1.78	32.45	5.18	26.13	20	-1.76	32.47	7.73	26.15	188	0.04
	20	-1.76	32.47	7.73	26.15							
28	USCGC NORTHWIND; April 8, 1955; 2000 GCT; 62°29'N, 167°10'W; sounding, 31 m; wind, 360°, force 4; weather, partly cloudy; sea, missing.											
	0	-1.71	32.65	4.40	26.29	0	-1.71	32.65	4.40	26.29	174	0.00
	10	-1.76	32.63	6.67	26.28	10	-1.76	32.63	6.67	26.28	175	0.02
	15	-1.76	32.74	3.44	26.36	20	-1.76	32.75	4.76	26.37	166	0.04
	25	-1.76	32.75	4.76	26.37							
29	USCGC NORTHWIND; April 9, 1955; 0300 GCT; 61°30'N, 167°47'W; sounding, 27 m; wind, calm; weather, partly cloudy; sea, missing.											
	0	-1.73	32.43	7.70	26.11	0	-1.73	32.43	7.70	26.11	191	0.00
	10	-1.75	32.43	7.71	26.11	10	-1.75	32.43	7.71	26.11	191	0.02
	20	-1.74	32.45	7.45	26.13	20	-1.74	32.45	7.45	26.13	189	0.04
	25	-1.73	32.45	7.72	26.13							
30	USCGC NORTHWIND; April 9, 1955; 2300 GCT; 60°28'N, 168°47'W; sounding, 38 m; wind, 250°, force 4; weather, clear; sea, missing.											
	0	-1.67	31.89	7.69	25.67	0	-1.67	31.89	7.69	25.67	233	0.00
	10	-1.73	32.16u	7.69	25.89	10	-1.68	31.90	7.69	25.68	232	0.02
	20	-1.70	31.91	7.65	25.69	20	-1.70	31.91	7.65	25.69	231	0.05
	30	-1.69	31.85	7.25	25.64	30	-1.69	31.85	7.25	25.64	235	0.07
31	USCGC NORTHWIND; April 10, 1955; 0600 GCT; 59°36'N, 169°10'W; sounding, 47 m; wind, 250°, force 3; weather, slight fall of snowflakes; sea, missing.											
	0	-1.68	31.76	7.77	25.57	0	-1.68	31.76	7.77	25.57	243	0.00
	10	-1.71	31.91	7.69	25.69	10	-1.71	31.91	7.69	25.69	231	0.02
	20	-1.71	32.95u	7.50	26.53	20	-1.71	31.79	7.50	25.59	240	0.05
	30	-1.70	31.67	7.75	25.50	30	-1.70	31.67	7.75	25.50	249	0.07
	40	-1.72	32.00	8.77	25.76							
32	USCGC NORTHWIND; April 10, 1955; 2100 GCT; 58°24'N, 169°32'W; sounding, 69 m; wind, 270°, force 3; weather, cloudy; sea, missing.											
	0	-1.59	31.74	7.93	25.55	0	-1.59	31.74	7.93	25.55	244	0.00
	10	-1.69	31.80	7.86	25.60	10	-1.69	31.80	7.86	25.60	239	0.02
	30	-1.70	31.85	7.86	25.64	20	-1.69	31.83	7.86	25.63	237	0.05
	50	-	31.87	7.75	-	30	-1.70	31.85	7.86	25.64	235	0.07
	65	-1.49u	31.83	7.77	25.62	50		31.87	7.75			
33	USCGC NORTHWIND; April 11, 1955; 0300 GCT; 57°05'N, 169°22'W; sounding, 71 m; wind, 220°, force 4; weather, overcast; sea, missing.											
	0	0.83	32.47	7.64	26.05	0	0.83	32.47	7.64	26.05	197	0.00
	10	0.32u	32.52	-	26.11	10	0.77	32.52	7.43	26.09	193	0.02
	20	1.24u	32.66	7.22	26.17	20	0.72	32.66	7.22	26.21	182	0.04
	30	0.70	-	5.96u	-	30	0.70	32.76	7.43	26.29	174	0.06
	50	0.74	32.92	7.46	26.41	50	0.74	32.92	7.46	26.41	162	0.09
	65	0.76	32.65	6.07u	26.19							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O ₂	σ _t	Z	T	S	O ₂	σ _t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

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USCGC NORTHWIND; April 11, 1955; 0900 GCT; 56°04'N, 169°19'W; sounding, 292 m; wind, 220°, force 4; weather, intermittent slight rain; sea, slight.

34

0	1.96	32.77	7.33	26.21	0	1.96	32.77	7.33	26.21	181	0.00
8	1.95	32.88	7.27	26.30	10	1.94	32.88	7.24	26.30	173	0.02
16	-	32.57u	7.14	-	20	1.93	32.89		26.31	172	0.04
39	1.97	32.90	-	26.32	30	1.94	32.89		26.31	172	0.05
79	2.37	32.92	7.05	26.30	50	2.06	32.89		26.30	173	0.09
120	3.03	33.12	6.45	26.41	75	2.32	32.91		26.30	174	0.13
236	3.65	33.48	4.02	26.64	100	2.74	33.03	6.75	26.36	168	0.17
					150	3.37	33.24	5.77	26.47	158	0.25
					200	3.54	33.40	4.74	26.58	148	0.33

USCGC NORTHWIND; April 11, 1955; 1500 GCT; 56°14'N, 171°02'W; sounding, missing; wind, 220°, force 7; weather, overcast; sea, rough.

35

0	2.39	33.01	7.25	26.37	0	2.39	33.01	7.25	26.37	166	0.00
18	2.38	33.12	7.22	26.46	10	2.38	33.08	7.22	26.43	161	0.02
46	2.44	33.10	7.23	26.44	20	2.38	33.12	7.22	26.46	158	0.03
93	2.57	33.15	7.21	26.47	30	2.40	33.12	7.23	26.46	158	0.05
140	3.04	33.31	6.62	26.56	50	2.45	33.10	7.22	26.44	160	0.08
187	3.57	33.30u	5.49	26.50	75	2.51	33.11	7.22	26.44	160	0.12
282	3.56	33.58	4.27	26.72	100	2.62	33.18	7.16	26.49	156	0.16
378	3.62	33.73	2.63	26.84	150	3.16	33.31	6.33	26.55	151	0.24
					200	3.57	33.44	5.31	26.61	145	0.31
					250	3.57	33.53	4.65	26.68	138	0.38
					300	3.56	33.61	4.02	26.75	133	0.45

USCGC NORTHWIND; April 11, 1955; 2000 GCT; 57°06'N, 171°12'W; sounding, 100 m; wind, 270°, force 5; weather, partly cloudy; sea, rough.

36

0	-1.30	31.94	8.18	25.71	0	-1.30	31.94	8.18	25.71	229	0.00
10	-1.29	32.05	8.02	25.80	10	-1.29	32.05	8.02	25.80	221	0.02
20	-0.59	32.41	7.91	26.06	20	-0.59	32.41	7.91	26.06	195	0.04
50	1.56	32.79	7.25	26.26	30	0.12	32.65	7.69	26.23	180	0.06
75	2.00	32.65u	7.17	26.11	50	1.56	32.79	7.25	26.26	177	0.10
					75	2.00		7.17			

USCGC NORTHWIND; April 12, 1955; 0200 GCT; 57°49'N, 172°32'W; sounding, 117 m; wind, 290°, force 4; weather, cloudy; sea, rough.

37

0	-1.42	32.09	8.19	25.83	0	-1.42	32.09	8.19	25.83	218	0.00
10	-1.44	32.07	8.33	25.82	10	-1.44	32.07	8.33	25.82	219	0.02
19	-1.25	32.20	8.17	25.92	20	-1.22	32.21	8.16	25.92	209	0.04
47	0.19	32.50	7.69	26.10	30	-0.82	32.33	7.69	26.01	201	0.06
71	0.82	32.61	7.59	26.16	50	0.30	32.52	7.67	26.11	191	0.10
95	0.81	32.63	7.46	26.18	75	0.82	32.62	7.57	26.17	186	0.15

USCGC NORTHWIND; April 12, 1955; 0800 GCT; 57°11'N, 174°00'W; sounding, missing; wind, 200°, force 3; weather, overcast; sea, moderate.

38

0	1.78	32.99	7.41	26.40	0	1.78	32.99	7.41	26.40	163	0.00
10	1.77	32.99	7.39	26.40	10	1.77	32.99	7.39	26.40	163	0.02
50	1.95	33.01	6.97	26.41	20	1.81	33.00	7.28	26.41	163	0.03
100	2.07	33.04	7.28	26.42	30	1.85	33.00	7.17	26.40	163	0.05
150	2.97	33.22	5.91	26.49	50	1.95	33.01	6.97	26.41	163	0.08
200	3.43	33.46	4.99	26.64	75	2.02	33.02	7.13	26.41	163	0.12
300	3.66	33.69	3.73	26.80	100	2.07	33.04	7.28	26.42	162	0.16
400	3.56	33.84	2.13	26.93	150	2.97	33.22	5.91	26.49	156	0.24
					200	3.43	33.46	4.99	26.64	142	0.32
					250	3.60	33.59	4.29	26.73	134	0.39
					300	3.66	33.69	3.73	26.80	128	0.45
					400	3.56	33.84	2.13	26.93	116	0.57

USHO USCGC NORTHWIND	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O ₂ ml/L	σ_t g/L	Z m	T °C	S ‰	O ₂ ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
39	USCGC NORTHWIND; April 12, 1955; 1300 GCT; 57°57'N, 175°11'W; sounding, 2378 m; wind, 320°, force 4; weather, moderate fall of snowflakes; sea, moderate.											
	0	0.04	32.79	7.78	26.34	0	0.04	32.79	7.78	26.34	169	0.00
	6	0.06	32.75u	7.73	26.31	10	0.55	32.87	7.69	26.38	165	0.02
	32	1.31	33.01	7.50	26.45	20	0.96	32.95	7.60	26.42	161	0.03
	65u	1.51u	33.08u	7.29	26.49	30	1.26	33.00	7.52	26.45	159	0.05
	98	1.49	33.01	7.34	26.44	50	1.45	33.01	7.38	26.44	160	0.08
	132	1.94	33.08	7.17	26.46	75	1.46	33.01	7.31	26.44	160	0.12
	203	2.94	-	-	-	100	1.52	33.01	7.34	26.44	160	0.16
	286	3.47	33.57	4.04	26.72	150	2.24	33.12	6.93	26.47	157	0.24
						200	2.91	33.26	6.01	26.53	152	0.32
						250	3.32	33.43	4.90	26.63	144	0.39
40	USCGC NORTHWIND; April 12, 1955; 2000 GCT; 58°40'N, 173°30'W; sounding, 120 m; wind, 110°, force 4; weather, granular snow; sea, rough.											
	0	-1.64	32.20	8.46	25.92	0	-1.64	32.20	8.46	25.92	209	0.00
	8	-1.64	32.25	8.55	25.97	10	-1.64	32.26	8.54	25.97	204	0.02
	17	-1.64	32.18u	8.53	25.91	20	-1.55	32.31	8.40	26.01	200	0.04
	42	-0.68	32.47	7.98	26.12	30	-1.17	32.38	8.27	26.06	196	0.06
	63	0.13	32.61	7.68	26.20	50	-0.34	32.54	7.85	26.16	186	0.10
	85	0.31	32.68	7.64	26.24	75	0.24	32.66	7.66	26.23	180	0.14
41	USCGC NORTHWIND; April 13, 1955; 0300 GCT; 59°41'N, 173°24'W; sounding, 98 m; wind, 140°, force 6; weather, moderate fall of snowflakes; sea, missing.											
	0	-1.67	31.83	8.02	25.63	0	-1.67	31.83	8.02	25.63	237	0.00
	8	-1.68	31.98	8.02	25.75	10	-1.68	31.99	7.98	25.76	225	0.02
	17	-1.69	32.03	7.90	25.79	20	-1.69	32.00	7.93	25.76	224	0.05
	43	-1.64	32.00	8.10	25.76	30	-1.69	32.00	8.01	25.76	224	0.07
	65	-1.05	32.21	7.34	25.92	50	-1.53	32.02	7.91	25.78	222	0.11
	79	0.52	32.50	6.56	26.09	75	-0.27	32.40	6.78	26.04	197	0.16
42	USCGC NORTHWIND; April 13, 1955; 0900 GCT; 59°59'N, 174°08'W; sounding, 124 m; wind, 220°, force 4; weather, showers of snow, or of rain and snow; sea, missing.											
	0	-1.68	32.68	9.53	26.31	0	-1.68	32.68	9.53	26.31	172	0.00
	10	-1.69	32.61	9.46	26.26	10	-1.69	32.61	9.46	26.26	177	0.02
	20	-1.67	32.63	9.42	26.27	20	-1.67	32.63	9.42	26.27	175	0.04
	50	-1.27u	32.74	8.86	26.35	30	-1.65	32.65	9.24	26.29	174	0.05
	75	-1.49	33.26	7.46	26.78	50	-1.60	32.74	8.86	26.36	167	0.09
	100	0.01	33.33	7.34	26.78	75	-1.49	33.26	7.46	26.78	127	0.12
						100	0.01	33.33	7.34	26.78	127	0.16
43	USCGC NORTHWIND; April 13, 1955; 1800 GCT; 58°57'N, 175°04'W; sounding, 133 m; wind, 200°, force 4; weather, moderate fall of snowflakes; sea, moderate.											
	0	-1.65	32.63	8.94	26.27	0	-1.65	32.63	8.94	26.27	176	0.00
	9	-1.66	32.59	8.94	26.24	10	-1.66	32.59	8.93	26.24	179	0.02
	18	-1.66	32.66	8.83	26.30	20	-1.56	32.68	8.75	26.31	172	0.04
	46	0.05	32.92	7.78	26.45	30	-1.02	32.78	8.33	26.38	166	0.05
	69	0.32	33.28	7.68	26.72	50	0.10	32.97	7.76	26.49	155	0.08
	116	1.47	-	7.06	-	75	0.42		7.59			
						100	1.02		7.30			
44	USCGC NORTHWIND; April 14, 1955; 0000 GCT; 57°58'N, 175°20'W; sounding, 2286 m; wind, 200°, force 5; weather, intermittent moderate fall of snowflakes; sea, very rough.											
	0	0.04	33.08	8.12	26.58	0	0.04	33.08	8.12	26.58	147	0.00
	15	0.04	33.01	-	26.52	10	0.04	33.03		26.54	151	0.02
	38	0.46	33.22	4.29	26.67	20	0.14	33.05		26.55	149	0.03
	76	1.20	33.46	7.02	26.82	30	0.33	33.14		26.61	143	0.04
	154	2.05	33.46	6.83	26.76	50	0.76	33.32	4.98	26.73	132	0.07
	233	3.38	33.69	4.87	26.83	75	1.19	33.44	6.90	26.80	125	0.10
	313	3.53	33.64	3.63	26.77	100	1.50	33.46	6.98	26.80	126	0.14
	394	3.58	33.75	2.38	26.86	150	2.01	33.46	6.85	26.76	130	0.20
						200	2.83	33.59	5.88	26.80	127	0.26
						250	3.42	33.67	4.64	26.81	127	0.33
						300	3.51	33.65	3.83	26.78	129	0.39

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O ₂	σ _t	Z	T	S	O ₂	σ _t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

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USCGC
NORTHWIND

USCGC NORTHWIND; April 15, 1955; 0000 GCT; 58°18'N, 168°07'W; sounding, 60 m; wind, 270°, force 5; weather, overcast; sea, moderate.

45

0	-1.70	31.80	7.93	25.60	0	-1.70	31.80	7.93	25.60	239	0.00
10	-1.69	31.80	-	25.60	10	-1.69	31.80	7.94	25.60	239	0.02
20	-1.71	31.87	7.95	25.66	20	-1.71	31.87	7.95	25.66	234	0.05
30	-1.66	31.85	7.83	25.64	30	-1.66	31.85	7.83	25.64	235	0.07
50	-1.67	31.82	7.91	25.62	50	-1.67	31.82	7.91	25.62	237	0.12

USCGC NORTHWIND; April 15, 1955; 0900 GCT; 58°20'N, 166°00'W; sounding, 45 m; wind, 270°, force 3; weather, overcast; sea, missing.

46

0	-1.69	31.71	7.96	25.53	0	-1.69	31.71	7.96	25.53	246	0.00
10	-1.67	31.64	7.95	25.47	10	-1.67	31.64	7.95	25.47	252	0.02
20	-1.68	31.74	7.93	25.55	20	-1.68	31.74	7.93	25.55	244	0.05
30	-1.64	31.67	8.09	25.50	30	-1.64	31.67	8.09	25.50	249	0.07
40	-1.67	31.64	8.05	25.47							

USCGC NORTHWIND; April 15, 1955; 2100 GCT; 58°45'N, 163°14'W; sounding, 27 m; wind, 160°, force 3; weather, cloudy; sea, missing.

47

0	-1.57	31.49	9.26	25.35	0	-1.57	31.49	9.26	25.35	264	0.00
10	-1.59	31.47	9.32	25.33	10	-1.59	31.47	9.32	25.33	265	0.03
15	-1.58	31.46	9.15	25.32	20	-1.60	31.42	9.01	25.29	269	0.05
20	-1.60	31.42	9.01	25.29							

USCGC NORTHWIND; April 16, 1955; 1100 GCT; 59°25'N, 165°37'W; sounding, 15 m; wind, 160°, force 4; weather, moderate rain; sea, slight.

48

0	-1.7	31.89	9.71	25.67	0	-1.70	31.89	9.71	25.67	233	0.00
5	-1.43	31.87	0.08	25.65	10	-1.43	31.85	0.07	25.64	236	0.02
10	-1.43	31.85	0.07	25.64							

USCGC NORTHWIND; April 18, 1955; 0100 GCT; 58°00'N, 163°05'W; sounding, 42 m; wind, 200°, force 5; weather, cloudy; sea, slight.

49

0	-1.66	31.85	8.60	25.64	0	-1.66	31.85	8.60	25.64	236	0.00
10	-1.57	31.80	8.48	25.60	10	-1.57	31.80	8.48	25.60	240	0.02
20	-1.65	31.83	8.44	25.63	20	-1.65	31.83	8.44	25.63	237	0.05
30	-1.63	31.91	8.39	25.69	30	-1.63	31.91	8.39	25.69	231	0.07

USCGC NORTHWIND; April 18, 1955; 0500 GCT; 56°59'N, 163°11'W; sounding, 54 m; wind, 200°, force 6; weather, cloudy; sea, rough.

50

0	-0.57	31.80	8.12	25.57	0	-0.57	31.80	8.12	25.57	242	0.00
10	-0.56	31.82	7.18	25.59	10	-0.56	31.82	7.18	25.59	241	0.02
20	-0.57	31.83	8.07	25.60	20	-0.57	31.83	8.07	25.60	240	0.05
50	-0.54	31.92	7.69	25.67	30	-0.57	31.85	7.88	25.61	238	0.07
					50	-0.54	31.92	7.69	25.67	233	0.12

USCGC NORTHWIND; April 18, 1955; 1100 GCT; 56°00'N, 162°43'W; sounding, 76 m; wind, 220°, force 4; weather, slight rain or drizzle and snow; sea, moderate.

51

0	1.91	31.09	7.67	24.87	0	1.91	31.09	7.67	24.87	309	0.00
10	1.92	31.09	-	24.87	10	1.92	31.09		24.87	309	0.03
20	1.93	31.09	-	24.87	20	1.93	31.09		24.87	309	0.06
40	1.84	31.09	-	24.88	30	1.89	31.09		24.88	308	0.09
65	1.71	31.09	-	24.89	50	1.80	31.09		24.88	308	0.15

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

USHO

USS BURTON ISLAND

USS BURTON ISLAND; April 21, 1955; 1600 GCT; 56°55'N, 166°05'W; sounding, 72 m; wind, 210°, force 4; weather, partly cloudy; sea, smooth.

1

0	0.68	32.20	25.84	0	0.68	32.20	25.84	217	0.00
9	0.70	32.21	25.84	10	0.70	32.21	25.84	216	0.02
19	0.70	32.20	25.84	20	0.70	32.20	25.84	217	0.04
47	0.75	32.30	25.91	30	0.71	32.25	25.88	213	0.06
71	0.84	32.32	25.93	50	0.76	32.31	25.92	209	0.11

USS BURTON ISLAND; April 21, 1955; 2300 GCT; 56°52'N, 167°58'W; sounding, 84 m; wind, 270°, force 5; weather, slight fall of snowflakes; sea, moderate.

2

0	1.18	32.45	26.01	0	1.18	32.45	26.01	201	0.00
10	1.18	32.41	25.98	10	1.18	32.41	25.98	204	0.02
20	1.17	32.45	26.01	20	1.17	32.45	26.01	201	0.04
50	1.32	32.47	26.02	30	1.21	32.46	26.02	200	0.06
75	1.52	32.50	26.03	50	1.32	32.47	26.02	200	0.10
				75	1.52	32.50	26.03	199	0.15

USS BURTON ISLAND; April 22, 1955; 0700 GCT; 56°46'N, 170°08'W; sounding, 91 m; wind, 280°, force 4; weather, cloudy; sea, very rough.

3

0	0.87	32.52	26.08	0	0.87	32.52	26.08	194	0.00
10	0.91	32.52	26.08	10	0.91	32.52	26.08	194	0.02
19	1.05	32.57	26.11	20	1.08	32.58	26.12	190	0.04
48	1.69	32.74	26.21	30	1.35	32.65	26.16	186	0.06
72	1.85	32.75	26.21	50	1.72	32.75	26.21	181	0.09

USS BURTON ISLAND; April 22, 1955; 1600 GCT; 56°38'N, 173°03'W; sounding, 137 m; wind, 280°, force 6; weather, cloudy; sea, very high.

4

2	2.39	33.04	26.40	0	(2.39)	(33.04)	(26.40)	(164)	(0.00)
12	2.41	33.08	26.43	10	2.41	33.07	26.42	162	0.02
22	2.41	33.08	26.43	20	2.41	33.08	26.43	161	0.03
52	2.43	33.06	26.41	30	2.42	33.07	26.42	162	0.05
77	2.48	33.03	26.38	50	2.43	33.06	26.41	163	0.08
102	2.73u	33.12	26.43	75	2.47	33.03	26.38	166	0.12
126	2.88	33.17	26.46	100	2.62	33.11	26.43	161	0.16

USS BURTON ISLAND; April 23, 1955; 0700 GCT; 56°29'N, 176°00'W; sounding, 3630 m; wind, 280°, force 5; weather, intermittent moderate fall of snowflakes; sea, very rough.

5

0	2.31	33.10	26.45	0	2.31	33.10	26.45	159	0.00
13	2.35	33.08	26.43	10	2.34	33.08	26.43	161	0.02
33	2.34	33.10	26.45	20	2.35	33.09	26.44	160	0.03
50	2.34	33.10	26.45	30	2.34	33.10	26.45	159	0.05
67	2.40	33.10	26.44	50	2.34	33.10	26.45	159	0.08
100	2.47	33.22	26.53	75	2.42	33.11	26.45	159	0.12
				100	2.47	33.22	26.53	151	0.16

USHO

USS BURTON ISLAND

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

6

USS BURTON ISLAND; April 23, 1955; 2100 GCT; 56°24'N, 179°03'W; sounding, 3750 m; wind, 270°, force 2; weather, cloudy; sea, slight.

0	2.04	33.35	26.67	0	2.04	33.35	26.67	138	0.00
18	2.04	33.35	26.67	10	2.04	33.35	26.67	138	0.01
45	2.02	33.33	26.66	20	2.04	33.35	26.67	138	0.03
67	2.03	33.28	26.62	30	2.03	33.34	26.66	139	0.04
89	2.07	33.35	26.67	50	2.02	33.31	26.64	141	0.07
134	1.98	33.35	26.68	75	2.05	33.31	26.64	141	0.10
179	2.06	33.39	26.70	100	2.03	33.35	26.67	138	0.14
272	3.64	33.77	26.87	150	2.01	33.36	26.68	137	0.21
365	3.65	33.95	27.01	200	2.55	33.49	26.74	132	0.28
555	3.47	34.14	27.18	250	3.41	33.70	26.83	124	0.34
905	2.99	34.31	27.36	300	3.64	33.83	26.91	117	0.40
1248	2.57	34.43	27.49	400	3.62	33.99	27.04	106	0.51
1688	2.13	34.56	27.63	500	3.53	34.09	27.13	98	0.61
2143	1.85	34.65	27.72	600	3.41	34.16	27.20	92	0.71
2604	1.70	34.65	27.74	800	3.13	34.26	27.31	83	0.88
3068	1.60	34.70	27.78	1000	2.87	34.34	27.39	76	1.04
				1200	2.62	34.41	27.47	69	1.19
				1500	2.30	34.51	27.58	59	1.38
				2000	1.92	34.63	27.70	48	1.65
				2500	1.73	34.65	27.73	46	1.89
				3000	1.61	34.69	27.78	43	2.11

7

USS BURTON ISLAND; April 24, 1955; 1400 GCT; 56°22'N, 178°11'E; sounding, 3750 m; wind, 130°, force 2; weather, partly cloudy; sea, slight.

0	1.74	33.33	26.68	0	1.74	33.33	26.68	137	0.00
20	1.74	33.33	26.68	10	1.74	33.33	26.68	137	0.01
50	1.67	33.39	26.73	20	1.74	33.33	26.68	137	0.03
75	1.67	33.33	26.68	30	1.71	33.37	26.71	134	0.04
100	1.71	33.28	26.64	50	1.67	33.39	26.73	132	0.07
150	1.61	33.31	26.67	75	1.67	33.33	26.68	137	0.10
199	3.43	33.68	26.82	100	1.71	33.28	26.64	141	0.14
299	3.64	33.91	26.98	150	1.61	33.31	26.67	138	0.21
399	3.50	34.05	27.10	200	3.43	33.68	26.82	126	0.27
599	3.30	34.20	27.24	250	3.58	33.81	26.90	118	0.33
683	3.21	34.23	27.27	300	3.64	33.91	26.98	111	0.39
				400	3.50	34.05	27.10	100	0.50
				500	3.40	34.14	27.18	93	0.59
				600	3.30	34.20	27.24	88	0.68

8

USS BURTON ISLAND; April 25, 1955; 0000 GCT; 56°16'N, 176°01'E; sounding, 3840 m; wind, 040°, force 4; weather, overcast; sea, slight.

0	1.99	33.35	26.67	0	1.99	33.35	26.67	138	0.00
25	1.99	33.39	26.71	10	1.99	33.37	26.69	136	0.01
74	1.77	33.39	26.72	20	1.99	33.38	26.70	135	0.03
99	1.61	33.40	26.74	30	1.97	33.39	26.71	134	0.04
149	1.48	33.37	26.73	50	1.89	33.39	26.71	134	0.07
174	3.45	33.69	26.82	75	1.76	33.39	26.72	133	0.10
198	3.71	33.80	26.88	100	1.55	33.39	26.74	132	0.13
298	3.69	33.96	27.01	150	1.59	33.39	26.74	132	0.20
397	3.56	34.07	27.11	200	3.71	33.80	26.88	119	0.26
595	3.32	34.22	27.26	250	3.70	33.89	26.96	113	0.32
651	3.23	34.25	27.29	300	3.69	33.96	27.01	108	0.38
932	2.90	34.34	27.39	400	3.56	34.07	27.11	99	0.48
1214	2.54	34.47	27.52	500	3.45	34.16	27.20	92	0.58
1499	2.20	34.52	27.59	600	3.31	34.22	27.26	87	0.66
1980	1.88	34.61	27.69	800	3.06	34.29	27.34	80	0.83
2468	1.69	34.65	27.74	1000	2.81	34.38	27.43	72	0.98
2960	1.68	34.69	27.77	1200	2.56	34.46	27.52	65	1.12
				1500	2.20	34.52	27.59	58	1.30
				2000	1.87	34.61	27.69	49	1.57
				2500	1.69	34.65	27.74	46	1.81

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

USHO

USS BURTON ISLAND

USS BURTON ISLAND; April 25, 1955; 1800 GCT; 57°53'N, 178°30'E; sounding, 3750 m; wind, 030°, force 5; weather, intermittent moderate fall of snowflakes; sea, very high.

9

0	1.39	33.35	26.72	0	1.39	33.35	26.72	134	0.00
11	1.42	33.33	26.70	10	1.42	33.33	26.70	135	0.01
34	1.41	33.31	26.68	20	1.42	33.32	26.69	136	0.03
46	1.37	33.24	26.63	30	1.41	33.32	26.69	136	0.04
69	1.40	33.28	26.66	50	1.38	33.25	26.64	141	0.07
81	1.30	33.30	26.68	75	1.33	33.29	26.67	138	0.10
93	1.37	33.28	26.66	100	1.36	33.27	26.66	140	0.14
143	1.34	33.26	26.65	150	1.36	33.27	26.66	140	0.21
199	1.48	33.35	26.71	200	1.52	33.36	26.72	134	0.28
292	3.58	33.82	26.91	250	2.97	33.67	26.85	122	0.34
336	3.62	33.87	26.95	300	3.59	33.83	26.92	117	0.40
408	3.57	34.00	27.06	400	3.58	33.99	27.05	105	0.51
531	3.52u	34.16	27.19	500	3.42	34.13	27.17	94	0.61
660	3.20	34.23	27.27	600	3.28	34.20	27.24	88	0.70
888	2.94	34.34	27.39	800	3.04	34.30	27.35	79	0.87
1160	2.64	34.45	27.50	1000	2.81	34.39	27.44	71	1.02
1482	2.35	34.52	27.58	1200	2.60	34.46	27.51	65	1.16

USS BURTON ISLAND; April 26, 1955; 0800 GCT; 59°04'N, 179°31'W; sounding, 3380 m; wind, 040°, force 4; weather, overcast; sea, very rough, confused.

10

0	0.43	32.92	26.43	0	0.43	32.92	26.43	161	0.00
15	0.48	32.92	26.43	10	0.46	32.92	26.43	161	0.02
47	1.57	33.13	26.53	20	0.72	32.96	26.45	159	0.03
63	1.74	33.21	26.58	30	1.12	33.03	26.48	156	0.05
94	2.04	33.24	26.58	50	1.60	33.15	26.54	150	0.08
110	1.97	33.28	26.62	75	1.92	33.22	26.58	147	0.12
127	2.14	33.30	26.62	100	1.99	33.26	26.60	145	0.15
194	2.43	33.39	26.67	150	2.16	33.31	26.63	142	0.22
265	3.49	33.66	26.79	200	2.54	33.42	26.69	137	0.29
434	3.55	34.00	27.06	250	3.32	33.61	26.77	130	0.36
450	3.45	34.02	27.08	300	3.50	33.75	26.86	122	0.42
621	3.35	34.16	27.20	400	3.54	33.95	27.02	108	0.54
803	3.11	34.23	27.28	500	3.43	34.07	27.13	98	0.64
985	2.82	34.36	27.41	600	3.37	34.15	27.19	93	0.74
1304	2.42	34.47	27.54	800	3.11	34.23	27.28	85	0.91
1655	2.09	34.58	27.65	1000	2.80	34.37	27.42	73	1.07
2035	1.89	34.63	27.71	1200	2.54	34.44	27.50	66	1.21
				1500	2.22	34.54	27.61	56	1.39
				2000	1.90	34.63	27.71	48	1.66

USS BURTON ISLAND; April 26, 1955; 2100 GCT; 60°01'N, 177°59'W; sounding, 135 m; wind, 040°, force 4; weather, cloudy; sea, missing.

11

0	-1.49	32.65	26.29	0	-1.49	32.65	26.29	174	0.00
10	-	32.65	-	10	-1.47	32.65	26.29	174	0.02
20	-1.45	32.65	26.28	20	-1.45	32.65	26.28	174	0.04
50	-0.44	32.90	26.45	30	-1.12	32.74	26.35	168	0.05
75	0.48	33.08	26.56	50	-0.44	32.90	26.45	158	0.08
99	0.62	33.08	26.55	75	0.48	33.08	26.56	149	0.12
124	0.73	33.08	26.54	100	0.63	33.08	26.55	150	0.16

USS BURTON ISLAND; April 27, 1955; 0800 GCT; 60°52'N, 176°40'W; sounding, 118 m; wind, 050°, force 6; weather, overcast; sea, missing.

12

0	-1.75	32.18	25.91	0	-1.75	32.18	25.91	210	0.00
10	-1.74	32.18	25.91	10	-1.74	32.18	25.91	210	0.02
20	-1.74	32.20	25.93	20	-1.74	32.20	25.93	208	0.04
50	-1.72	32.30	26.01	30	-1.73	32.21	25.93	208	0.06
75	-0.15	32.54	26.15	50	-1.72	32.30	26.01	200	0.10
100	0.74	32.83	26.34	75	-0.15	32.54	26.15	187	0.15
				100	0.74	32.83	26.34	169	0.20

USHO

USS BURTON ISLAND

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

13

USS BURTON ISLAND; April 29, 1955; 1700 GCT; 61°29'N, 175°42'W; sounding, 86 m; wind, 040°, force 5; weather, overcast; sea, missing.

0	-1.76	32.20	25.93	0	-1.76	32.20	25.93	209	0.00
10	-1.74	32.21	25.93	10	-1.74	32.21	25.93	208	0.02
20	-1.76	32.21	25.94	20	-1.76	32.21	25.94	208	0.04
50	-1.74	32.21	25.93	30	-1.76	32.21	25.94	207	0.06
75	-1.69	32.21	25.93	50	-1.74	32.21	25.93	207	0.10
				75	-1.69	32.21	25.93	207	0.16

14

USS BURTON ISLAND; May 1, 1955; 0400 GCT; 61°13'N, 172°42'W; sounding, 67 m; wind, 050°, force 3; weather, fog in patches; sea, missing.

0	-1.67	31.80	25.60	0	-1.67	31.80	25.60	239	0.00
10	-1.63	31.82	25.62	10	-1.63	31.82	25.62	238	0.02
20	-1.72	31.82	25.62	20	-1.72	31.82	25.62	238	0.05
40	-1.70	31.82	25.62	30	-1.71	31.82	25.62	238	0.07
60	-1.68	31.80	25.60	50	-1.69	31.81	25.61	238	0.12

15

USS BURTON ISLAND; May 2, 1955; 0200 GCT; 61°10'N, 170°12'W; sounding, 43 m; wind, 070°, force 4; weather, overcast; sea, missing.

0	-1.71	31.83	25.63	0	-1.71	31.83	25.63	237	0.00
10	-1.69	31.78	25.59	10	-1.69	31.78	25.59	241	0.02
20	-1.71	31.83	25.63	20	-1.71	31.83	25.63	237	0.05
30	-1.71	31.83	25.63	30	-1.71	31.83	25.63	237	0.07
40	-1.67	31.83	25.63						

16

USS BURTON ISLAND; May 2, 1955; 1100 GCT; 61°24'N, 168°20'W; sounding, 34 m; wind, 340°, force 1; weather, light fog; sea, missing.

0	-1.56	31.47	25.33	0	-1.56	31.47	25.33	265	0.00
10	-1.49	31.49	25.35	10	-1.49	31.49	25.35	264	0.03
20	-1.59	31.49	25.35	20	-1.59	31.49	25.35	263	0.05
30	-1.60	31.46	25.32	30	-1.60	31.46	25.32	266	0.08

17

USS BURTON ISLAND; May 3, 1955; 0500 GCT; 62°34'N, 167°06'W; sounding, 34 m; wind, 020°, force 4; weather, overcast; sea, missing.

0	-1.68	31.91	25.69	0	-1.68	31.91	25.69	231	0.00
10	-1.67	31.89	25.67	10	-1.67	31.89	25.67	232	0.02
20	-1.65	31.91	25.69	20	-1.65	31.91	25.69	231	0.05
25	-1.67	31.92	25.70						

18

USS BURTON ISLAND; May 3, 1955; 1900 GCT; 63°25'N, 165°30'W; sounding, 23 m; wind, 050°, force 3; weather, overcast; sea, missing.

0	-1.74	32.54	26.20	0	-1.74	32.54	26.20	182	0.00
10	-1.73	32.56	26.22	10	-1.73	32.56	26.22	181	0.02
15	-1.76	32.52	26.19						

19

USS BURTON ISLAND; May 11, 1955; 0800 GCT; 64°15'N, 166°40'W; sounding, 18 m; wind, 250°, force 2; weather, overcast; sea, missing.

0	-1.74	32.32	26.02	0	-1.74	32.32	26.02	199	0.00
10	-1.71	32.32	26.02	10	-1.71	32.32	26.02	199	0.02
18	-1.73	32.32	26.02						

20

USS BURTON ISLAND; May 16, 1955; 1500 GCT; 64°42'N, 168°23'W; sounding, 38 m; wind, 350°, force 4; weather, slight fall of snowflakes; sea, missing.

0	-1.76	32.97	26.55	0	-1.76	32.97	26.55	149	0.00
10	-1.78	32.94	26.53	10	-1.78	32.94	26.53	151	0.02
20	-1.80	32.94	26.53	20	-1.80	32.94	26.53	151	0.03
30	-1.80	32.94	26.53	30	-1.80	32.94	26.53	151	0.04
35	-1.74	32.97	26.55						

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

USHO

USS BURTON ISLAND

USS BURTON ISLAND; May 19, 1955; 1500 GCT; 64°17'N, 168°20'W; sounding, 32 m; wind, 280°, force 2; weather, intermittent slight fall of snowflakes; sea, missing.

21

0	-1.80	32.74	26.37	0	-1.80	32.74	26.37	167	0.00
10	-1.76	32.84	26.45	10	-1.76	32.84	26.45	159	0.02
20	-1.77	32.81	26.42	20	-1.77	32.81	26.42	161	0.03
30	-1.79	-	-	30	-1.79	-	-	-	-

USS BURTON ISLAND; May 26, 1955; 0300 GCT; 62°58'N, 167°44'W; sounding, 25 m; wind, 310°, force 2; weather, overcast; sea, missing.

22

2	-1.22	31.74	25.54	0	-1.22	31.74	25.54	245	0.00
12	-1.27	31.80	25.59	10	-1.26	31.79	25.58	241	0.02
22	-1.32	31.83	25.62	20	-1.31	31.82	25.61	239	0.05

USS BURTON ISLAND; May 26, 1955; 0600 GCT; 62°29'N, 167°48'W; sounding, 25 m; wind, 310°, force 4; weather, patches of shallow fog; sea, missing.

23

0	-0.50	31.49	25.32	0	-0.50	31.49	25.32	266	0.00
10	-0.65	31.60	25.41	10	-0.65	31.60	25.41	257	0.03
20	-1.00	31.62	25.44	20	-1.00	31.62	25.44	255	0.05
25	-1.00	31.62	25.44						

USS BURTON ISLAND; May 26, 1955; 1400 GCT; 61°07'N, 167°53'W; sounding, 23 m; wind, 300°, force 3; weather, fog; sea, missing.

24

0	-0.81	30.90	24.85	0	-0.81	30.90	24.85	311	0.00
10	-0.74	30.95	24.89	10	-0.74	30.95	24.89	307	0.03
20	-0.70	31.00	24.93	20	-0.70	31.00	24.93	303	0.06

USS BURTON ISLAND; May 26, 1955; 2100 GCT; 59°50'N, 167°46'W; sounding, 31 m; wind, 350°, force 4; weather, overcast; sea, slight.

25

0	0.35	31.11	24.98	0	0.35	31.11	24.98	299	0.00
5	0.35	31.11	24.98	10	0.33	31.11	24.98	299	0.03
15	0.29	31.11	24.98						

USS BURTON ISLAND; May 27, 1955; 0700 GCT; 58°03'N, 165°59'W; sounding, 54 m; wind, 230°, force 2; weather, slight fall of snowflakes; sea, slight.

26

0	0.29	31.71	25.46	0	0.29	31.71	25.46	253	0.00
10	0.26	31.74	25.49	10	0.26	31.74	25.49	250	0.02
20	0.25	31.73	25.48	20	0.25	31.73	25.48	251	0.05
30	0.23	31.71	25.47	30	0.23	31.71	25.47	252	0.08
50	0.26	31.73	25.48	50	0.26	31.73	25.48	251	0.13

USS BURTON ISLAND; May 27, 1955; 1500 GCT; 56°53'N, 165°52'W; sounding, 67 m; wind, 180°, force 5; weather, slight rain; sea, slight.

27

0	2.34	32.34	25.84	0	2.34	32.34	25.84	217	0.00
10	2.36	32.39	25.88	10	2.36	32.39	25.88	213	0.02
20	2.35	32.36	25.86	20	2.35	32.36	25.86	215	0.04
30	2.34	32.38	25.87	30	2.34	32.38	25.87	214	0.06
50	2.40	32.38	25.87	50	2.40	32.38	25.87	214	0.11

USS BURTON ISLAND; May 27, 1955; 2200 GCT; 55°54'N, 165°30'W; sounding, 102 m; wind, 210°, force 5; weather, overcast; sea, moderate.

28

0	4.04	32.03	25.45	0	4.04	32.03	25.45	254	0.00
10	3.89	32.05	25.48	10	3.89	32.05	25.48	251	0.02
20	3.84	32.03	25.47	20	3.84	32.03	25.47	252	0.05
50	-	32.39	-	30	3.79	32.16	25.57	242	0.08
90	3.37	32.72	26.06	50	3.66	32.39	25.77	224	0.12
				75	3.49	32.62	25.97	205	0.18

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

USHO

USS STATEN ISLAND

USS STATEN ISLAND; September 20, 1955; 0000 GCT; 65°00'N, 168°26'W; sounding, 46 m;
wind, 170°, force 4; weather, distant fog; sea, moderate.

11

0	3.82	31.89	25.36	0	3.82	31.89	25.36	263	0.00
5	3.75	31.89	25.36	10	3.71	31.91	25.38	260	0.03
10	3.71	31.91	25.38	20	3.64	32.00	25.46	253	0.05
15	3.66	31.89	25.37	30	3.62	31.89	25.38	261	0.08
20	3.64	32.00	25.46						
25	3.61	31.94	25.42						
35	3.63	31.85	25.34						
40	3.63	31.96	25.43						

USS STATEN ISLAND; September 20, 1955; 1600 GCT; 61°56'N, 167°59'W; sounding, 29 m;
wind, 140°, force 7; weather, slight rain; sea, slight.

12

0	5.40	31.18	24.63	0	5.40	31.18	24.63	332	0.00
5	5.39	31.20	24.65	10	5.40	31.20	24.65	330	0.03
10	5.40	31.20	24.65	20	5.31	31.22	24.67	328	0.07
15	5.40	31.20	24.65						
20	5.31	31.22	24.67						
25	5.08	31.22	24.70						

- a) Stations 1 through 10, occupied in the Beaufort and Chuckchee Seas, are not included because they are outside the area covered by this series. These data are available at the National Oceanographic Data Center in Washington, D. C.

OBSERVATIONS OF THE UNIVERSITY OF WASHINGTON

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

BB-80

BROWN BEAR; January 5, 1955; 1618 GCT; ^{a)} 47°16'N, 127°04'W; sounding, 1400 fm; wind, 290°, force 4; weather, cloudy.

80-7

0b)	9.18	32.36	6.40	1.10	0	9.18	32.36	6.40	1.10	25.05	292	0.00
10	9.23	32.36	6.38	1.05	10	9.23	32.36	6.38	1.05	25.04	293	0.03
20	9.20	32.34	6.38	1.10	20	9.20	32.34	6.38	1.10	25.03	294	0.06
30	9.15	32.35	6.38	1.05	30	9.15	32.35	6.38	1.05	25.04	293	0.09
50	9.18	32.36	6.06	1.05	50	9.18	32.36	6.06	1.05	25.05	293	0.15
75	6.88	32.74	6.14	1.50	75	6.88	32.74	6.14	1.50	25.68	233	0.21
99	7.54	33.12	4.70	2.05	100	7.53	33.14	4.66	2.06	25.90	212	0.27
142	7.14	33.76	3.18	2.50	150	7.06	33.78	3.10	2.53	26.47	159	0.36
195c)	6.58c)	33.90c)	2.65c)	2.30d)	200	6.54	33.88	2.61	2.69	26.62	146	0.44
294e)	5.62e)	33.97e)	1.85e)	2.90e)	250	6.02	33.93	2.18	2.84	26.73	136	0.51
					300	5.62	33.97	1.79	2.96	26.81	128	0.57
195c)	6.61c)	33.87c)	2.65c)	2.60d)	400	5.23	34.04	1.10	3.14	26.91	120	0.70
296e)	5.66e)	33.97e)	1.84e)	3.00e)	500	4.86	34.11	0.63	3.26	27.01	111	0.81
485	4.92	34.10	0.66	3.25	600	4.51	34.19	0.41	3.31	27.11	102	0.92
742	4.06	34.29	0.26	3.30	700	4.18	34.26	0.29	3.31	27.20	94	1.02
985	3.46	34.42	0.34	3.10	800	3.91	34.33	0.27	3.23	27.28	87	1.11
1515	2.46	34.53	0.75	3.40	1000	3.43	34.42	0.35	3.11	27.40	76	1.27
2042	1.92	34.57	1.56	3.30	1200	3.00	34.47	0.46	3.27	27.48	69	1.42
					1500	2.48	34.53	0.73	3.40	27.58	60	1.61
					2000	1.95	34.57	1.48	3.32	27.65	53	1.89

BROWN BEAR; January 5, 1955; 2312 GCT; 47°34.5'N, 126°11.5'W; sounding, 1000 fm; wind, 315°, force 2; weather, partly cloudy.

80-8

0f)	9.72	32.30	6.36	0.95	0	9.72	32.30	6.36	0.95	24.91	305	0.00
10	9.74	32.30	6.32	0.95	10	9.74	32.30	6.32	0.95	24.91	305	0.03
20	9.76	32.30	6.36	1.00	20	9.76	32.30	6.36	1.00	24.91	306	0.06
30	9.67	32.29	6.31	0.95	30	9.67	32.29	6.31	0.95	24.91	305	0.09
50	9.62	32.31	6.28	0.90	50	9.62	32.31	6.28	0.90	24.94	304	0.15
76	7.88	32.65	6.07	1.40	75	7.93	32.64	6.08	1.38	25.45	255	0.22
101c)	7.37c)	33.15c)	4.76d)	2.20d)	100	7.28	33.02			25.84	218	0.28
153	7.34	33.82	2.90	2.50	150	7.36	33.79	2.98	2.47	26.44	162	0.38
205	6.70	33.94	2.22	2.75	200	6.76	33.93	2.27	2.73	26.63	145	0.46
313	5.82	34.02	1.58	2.80	250	6.25	34.00	1.95	3.01	26.75	134	0.52
					300	5.89	34.02	1.66	2.87	26.81	128	0.59
100c)	7.20c)	32.90c)	5.47d)	1.55d)	400	5.40	34.06	1.14	2.95	26.91	120	0.71
279	6.02	34.02	1.78	3.00	500	4.97	34.12	0.76	3.10	27.00	112	0.83
539	4.82	34.14	0.65	3.15	600	4.61	34.20	0.56	3.23	27.11	103	0.94
795	4.00	34.34	0.37	3.40	700	4.28	34.28	0.45	3.33	27.21	94	1.04
1261	2.98	34.49	0.52	3.30	800	3.99	34.34	0.37	3.40	27.28	87	1.12
1736	2.27	34.56	1.06	3.50	1000	3.51	34.42	0.38	3.32	27.40	77	1.29
					1200	3.10	34.47	0.47	3.30	27.48	70	1.44
					1500	2.58	34.54	0.74	3.36	27.58	60	1.63

a) The times reported are those of messenger release of first cast.

b) Second cast.

c) Overlapping casts; two depths and corresponding values averaged to obtain interpolated and computed values.

d) This value deviates from smooth curve; not used.

e) Overlapping casts; two depths and corresponding values averaged to obtain interpolated and computed values.

f) Third cast; no data obtained from second cast.

UW

BB-80

80-9

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn m

BROWN BEAR; January 6, 1955; 0645 GCT; 47°54'N, 125°24.5'W; sounding, 457 fm; wind, 250°, force 1; weather, cloudy.

0a)	10.13	32.08	6.26		0	10.13	32.08	6.26		24.68	328	0.00
11	10.16	32.10	6.24		10	10.16	32.10	6.24		24.69	327	0.03
21	10.19	32.10	6.31		20	10.19	32.10	6.31		24.68	327	0.07
32	10.09	32.10	6.19		30	10.10	32.10	6.20		24.70	326	0.10
53	10.10	32.12	6.27		50	10.16	32.08	6.33		24.67	329	0.16
					75	8.88	32.80	5.02		25.44	256	0.24
80b)	8.66	32.94	4.72		100	7.99	33.47	3.34		26.10	194	0.29
106	7.84	33.58	3.04		150	7.69	33.72	2.51		26.34	172	0.39
160c)	7.62c)	33.73c)	2.45c)		200	7.57	33.78	2.30		26.40	167	0.47
212d)	7.47d)	33.78d)	-		250	7.03	33.87	2.24		26.55	153	0.55
					300	6.49	33.94	2.14		26.67	142	0.62
157c)	7.69c)	33.74c)	2.42c)		400	5.73	33.87	1.44		26.72	138	0.76
207d)	7.58d)	33.80d)	2.26e)		500	5.12	33.87	0.87		26.79	132	0.90
314	6.35	33.96	2.09		600	4.63	33.98	0.50		26.93	119	1.03
527	4.98	33.89	0.75		700	4.26	34.19	0.34		27.14	100	1.14
740	4.14	34.31	0.32									

a) Second cast.

b) Third cast.

c) Overlapping casts; two depths and corresponding values averaged to obtain interpolated and computed values.

d) Overlapping casts; two depths and corresponding values averaged to obtain interpolated and computed values.

e) This value used in drawing smooth curve.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 14, 1955; 0908 GCT; 48°32'N, 124°46'W; sounding, 100 fm; wind, 300°, force 2; weather, cloudy; sea, slight.

108-1

0	9.74	31.77	6.27	1.50	24.51	0	9.74	31.77	6.27	1.50	24.50	344	0.00
10	8.96	31.91	5.20	1.65	24.73	10	8.96	31.91	5.20	1.65	24.73	322	0.03
20	8.03	32.11	4.00	1.94	24.95	20	8.03	32.11	4.00	1.94	25.03	295	0.06
29	7.61	32.52	3.48	1.85	24.41	30	7.57	32.59	3.44	1.87	25.47	253	0.09
48	6.97	33.51	2.77	2.18	26.28	50	6.94	33.54	2.73	2.20	26.30	174	0.13
71	6.61	33.77	2.33	2.40	26.53	75	6.55	33.79	2.22	2.42	26.55	151	0.18
95	6.26	33.87	1.78	2.48	26.65	100	6.20	33.89	1.70	2.49	26.67	139	0.21
143	5.78	33.96	1.50	2.55	26.78								

BROWN BEAR; June 14, 1955; 1132 GCT; 48°30'N, 125°03'W; sounding, 72 fm; wind, 300°, force 2; weather, overcast; sea, smooth.

108-2

0	9.10	32.67	7.22	1.00	25.31	0	9.10	32.67	7.22	1.00	25.30	268	0.00
10	8.66	32.73	5.75	1.43	25.41	10	8.66	32.73	5.75	1.43	25.42	257	0.03
20	7.86	32.96	4.27	1.88	25.51	20	7.86	32.96	4.27	1.88	25.72	229	0.05
30	7.34	33.17	3.27	2.07	25.96	30	7.34	33.17	3.27	2.07	25.95	206	0.07
50	6.73	33.53	2.23	2.50	26.32	50	6.73	33.53	2.23	2.50	26.32	172	0.11
75	6.50	33.71	1.96	2.55	26.49	75	6.50	33.71	1.96	2.55	26.49	156	0.15
100	6.19	33.86	1.74	2.60	26.65	100	6.19	33.86	1.74	2.60	26.65	141	0.19

BROWN BEAR; June 14, 1955; 1705 GCT; 47°59'N, 124°57'W; sounding, 50 fm; wind, 290°, force 1; weather, overcast; sea, slight.

108-3

0	9.70	32.65	8.30	0.99	25.19	0	9.70	32.65	8.30	0.99	25.19	279	0.00
10	9.50	32.65	7.41	0.84	25.22	10	9.50	32.65	7.41	0.84	25.22	276	0.03
19	7.28	32.94	4.19	1.48	25.78	20	7.24	32.98	4.11	1.48	25.82	219	0.05
29	6.97	33.28	3.56	1.56	26.09	30	6.97	33.30	3.54	1.58	26.11	192	0.07
48	6.96	33.55	3.19	1.90	26.31	50	6.96	33.57	3.16	1.95	26.32	172	0.11
72	6.70	33.78	2.68	2.22	26.50	75	6.63	33.80	2.59	2.21	26.55	151	0.15
97	5.92	33.95	1.75	1.85a)	26.76								

BROWN BEAR; June 14, 1955; 2052 GCT; 47°36'N, 124°58'W; sounding, 85 fm; wind, 270°, force 1; weather, cloudy; sea, smooth.

108-4

0	10.02	32.11	7.56	0.55	24.72	0	10.02	32.11	7.56	0.55	24.72	324	0.00
10	9.48	32.14	7.08	0.71	24.82	10	9.48	32.14	7.08	0.71	24.83	313	0.03
20	9.18	32.38	7.84	0.94	25.06	20	9.18	32.38	7.84	0.94	25.06	291	0.06
30	7.60	32.56	5.22	1.49	25.44	30	7.60	32.56	5.22	1.49	25.44	255	0.09
50	6.98	32.96	4.94	1.79	25.84	50	6.98	32.96	4.94	1.79	25.84	218	0.14
74	7.26	33.55	3.32	2.12	26.27	75	7.26	33.56	3.29	2.12	26.27	177	0.18
99	7.10	33.81	2.73	2.22	26.49	100	7.09	33.82	2.71	2.22	26.50	156	0.23
148	5.91	33.98	1.69	2.54	26.78								

BROWN BEAR; June 15, 1955; 0114 GCT; 47°07'N, 124°43'W; sounding, 64 fm; wind, 265°, force 1; weather, cloudy; sea, slight.

108-5

0	11.16	32.04	7.06	0.64	24.46	0	11.16	32.04	7.06	0.64	24.47	347	0.00
10	10.46	32.08	7.00	0.60	24.61	10	10.46	32.08	7.00	0.60	24.62	333	0.03
20	9.89	32.20	8.08	0.59	24.81	20	9.89	32.20	8.08	0.59	24.81	315	0.07
30	7.12	32.76	4.97	1.58	25.67	30	7.12	32.76	4.97	1.58	25.66	234	0.09
49	7.04	33.26	3.63	2.14	26.08	50	7.06	33.28	3.62	2.14	26.08	195	0.14
74	7.14	33.62	3.09	2.22	26.35	75	7.12	33.63	3.06	2.23	26.35	170	0.18
98	6.33	33.92	1.88	2.56	26.69								

BROWN BEAR; June 15, 1955; 0532 GCT; 46°36'N, 124°34'W; sounding, 97 fm; wind, 250°, force 1; weather, cloudy; sea, slight.

108-6

0	11.11	32.08	8.46	0.48	24.51	0	11.11	32.08	8.46	0.48	24.51	344	0.00
10	9.66	32.14	7.00	0.86	24.79	10	9.66	32.14	7.00	0.86	24.80	316	0.03
20	9.20	32.36	7.43	0.76	25.05	20	9.20	32.36	7.43	0.76	25.04	293	0.06
30	8.05	32.51	5.99	1.30	25.35	30	8.05	32.51	5.99	1.30	25.34	265	0.09
50	7.20	33.09	4.10	2.05	25.90	50	7.20	33.09	4.10	2.05	25.91	211	0.14
75	7.10	33.72	2.56	2.42	26.44	75	7.10	33.72	2.56	2.42	26.42	163	0.19
100	6.58	33.89	1.69	2.62	26.62	100	6.58	33.89	1.69	2.62	26.62	144	0.22
125	6.30	33.95	1.90	2.52	26.71								

a) This value deviates from smooth curve; not used.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

108-7

BROWN BEAR; June 15, 1955; 1024 GCT; 46°05'N, 124°25'W; sounding, 69 fm; wind, 270°, force 2; weather, partly cloudy; sea, smooth.

0	10.48	27.72	7.84	0.89	21.23	0	10.48	27.72	7.84	0.89	21.23	657	0.00
10	9.77	32.63	7.15	0.98	25.15	10	9.77	32.63	7.15	0.98	25.16	281	0.05
20	7.39	32.77	4.38	1.81	25.64	20	7.39	32.77	4.38	1.81	25.63	237	0.07
30	7.22	33.06	3.56	2.09	25.88	30	7.22	33.06	3.56	2.09	25.88	213	0.10
49	6.97	33.78	2.21	2.70	26.49	50	6.95	33.79	2.20	2.71	26.49	155	0.13
74	6.43	33.92	1.88	2.82	26.67	75	6.41	33.92	1.86	2.82	26.67	139	0.17
99	6.00	34.00	1.33	2.78	26.78								

108-8

BROWN BEAR; June 15, 1955; 1520 GCT; 45°34'N, 124°18'W; sounding, 87 fm; wind, 095°, force 1; weather, partly cloudy; sea, smooth.

0	11.94	22.48	8.72	0.63	16.94	0	11.94	22.48	8.72	0.63	16.94	1070	0.00
10	10.84	32.54	6.10	1.03	24.92	10	10.84	32.54	6.10	1.03	24.91	305	0.07
20	9.05	32.63	5.56	1.53	25.28	20	9.05	32.63	5.56	1.53	25.28	270	0.10
30	7.52	32.83	4.57	1.86	25.66	30	7.52	32.83	4.57	1.86	25.66	234	0.12
50	7.15	33.62	1.61	2.64	26.33	50	7.15	33.62	1.61	2.64	26.33	171	0.16
75	6.46	33.94	1.81	2.64	26.67	75	6.46	33.94	1.81	2.64	26.68	138	0.20
100	6.17	33.96	1.64	2.64	26.73	100	6.17	33.96	1.64	2.64	26.73	134	0.24
125	5.93	33.97	1.68	2.64	26.78								
149	5.96	33.99	1.43	2.75	26.77								

108-9

BROWN BEAR; June 15, 1955; 2106 GCT; 45°01'N, 124°18'W; sounding, 97 fm; wind, 300°, force 1; weather, partly cloudy; sea, smooth.

0	12.52	29.97	7.55	0.78	22.63	0	12.52	29.97	7.55	0.78	22.62	524	0.00
10	10.34	30.54a)	6.33	1.06	23.44	10	10.34	30.54	6.33	1.06	23.44	445	0.05
20	8.44	30.54a)	5.78	1.21	23.74	20	8.44	30.54	5.78	1.21	23.74	417	0.09
30	7.38	32.64	5.38	1.50	25.53	30	7.38	32.64	5.38	1.50	25.53	246	0.12
50	7.32	33.22	3.61	2.18	26.01	50	7.32	33.22	3.61	2.18	26.00	203	0.17
75	7.32	33.65	2.86	2.34	26.34	75	7.32	33.65	2.86	2.34	26.33	171	0.22
100	7.11	33.82	2.34	2.44	26.50	100	7.11	33.82	2.34	2.44	26.50	156	0.26
125	6.66	33.88	1.71	2.60	26.60	150	6.22	33.95	1.95	2.54	26.72	136	0.33
150	6.22	33.95	1.95	2.54	26.72								

108-10

BROWN BEAR; June 16, 1955; 0244 GCT; 44°24'N, 124°38'W; sounding, 63 fm; wind, 340°, force 3; weather, partly cloudy; sea, smooth.

0	10.34	32.74	8.23	0.80	25.16	0	10.34	32.74	8.23	0.80	25.15	282	0.00
10	8.64	32.92	6.23	1.73	25.58	10	8.64	32.92	6.23	1.73	25.57	243	0.03
20	8.04	32.92	4.69	1.84	25.67	20	8.04	32.92	4.69	1.84	25.66	234	0.05
30	7.98	33.13	4.16	1.98	25.82	30	7.98	33.13	4.16	1.98	25.83	218	0.07
50	7.97	33.54	3.77	2.32	26.15	50	7.97	33.54	3.77	2.32	26.15	188	0.11
75	7.07	33.77	2.04	2.46	26.46	75	7.07	33.77	2.04	2.46	26.46	159	0.16
100	6.50	33.96	1.57	2.68	26.69	100	6.50	33.96	1.57	2.68	26.69	138	0.19

108-11

BROWN BEAR; June 16, 1955; 0759 GCT; 43°54'N, 124°28'W; sounding, 72 fm; wind, 315°, force 4; weather, partly cloudy; sea, smooth.

0	9.40	33.06	7.95	1.33	25.56	0	9.40	33.06	7.95	1.33	25.56	244	0.00
10	9.56	33.13	8.23	1.11	25.57	10	9.56	33.13	8.23	1.11	25.59	241	0.02
20	8.46	33.40	5.94b)	1.99	25.96	20	8.46	33.40	5.94	1.99	25.97	205	0.05
30	9.17	33.62	4.93b)	1.89	26.04	30	9.17	33.62	4.93	1.89	26.03	199	0.07
50	7.43	33.76	2.53	2.04	26.42	50	7.43	33.76	2.53	2.04	26.40	164	0.10
74	6.75	33.92	1.88	3.04	26.62	75	6.73	33.92	1.87	3.02	26.63	143	0.14
99	6.41	33.98	1.64	2.70	26.71	100	6.40	33.98	1.62	2.70	26.72	135	0.18
124	6.25	34.03	1.40	2.84	26.78								

a) Alternate value, 32.31‰.

b) These two values have been interchanged from their order on the original data sheet because it appears that a mistake was made in numbering the sample bottles.

OBSERVED						COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t		Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L		m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 16, 1955; 1231 GCT; 43°24'N, 124°31'W; sounding, 63 fm; wind, 015°, force 2; weather, partly cloudy; sea, smooth.

108-12

0	8.86	32.38	6.33	1.01	25.10	0	8.86	32.38	6.33	1.01	25.11	286	0.00
10	8.59	32.46	6.42	1.24	25.22	10	8.59	32.46	6.42	1.24	25.22	276	0.03
20	8.11	32.63	5.36	1.70	25.42	20	8.11	32.63	5.36	1.70	25.42	257	0.06
30	7.75	-	-	-	-	30	7.75	33.00	5.04	1.92	25.76	225	0.08
50	8.52	33.51	4.59	2.24	26.05	50	8.52	33.51	4.59	2.24	26.05	198	0.12
75	6.99	33.88	1.87	2.61	26.56	75	6.99	33.88	1.87	2.61	26.56	150	0.16
100	6.62	33.97	1.25	2.36	26.68	100	6.62	33.97	1.25	2.36	26.68	138	0.20

BROWN BEAR; June 16, 1955; 2051 GCT; 42°54'N, 124°43'W; sounding, 70 fm; wind, 320°, force 2; weather, partly cloudy; sea, smooth.

108-13

0	9.14	33.39	4.88	2.18	25.87	0	9.14	33.39	4.88	2.18	25.86	215	0.00
10	8.29	33.58	4.17	2.10	26.13	10	8.29	33.58	4.17	2.10	26.14	189	0.02
20	7.74	33.64	3.45	2.52	26.28	20	7.74	33.64	3.45	2.52	26.27	177	0.04
30	7.76	33.77	-	-	26.36	30	7.76	33.77	2.89	-	26.36	167	0.06
50	7.02	33.93	2.42	2.34	26.60	50	7.02	33.93	2.42	2.34	26.60	146	0.09
75	6.74	33.99	2.12	2.52	26.68	75	6.74	33.99	2.12	2.52	26.68	138	0.12
100	6.69	33.97	2.11	2.52	26.67	100	6.69	33.97	2.11	2.52	26.67	139	0.16

BROWN BEAR; June 17, 1955; 0016, missing GCT; 42°54'N, 124°57'W; sounding, 390 fm; wind, calm; weather, overcast; sea, smooth.

108-14

0	10.64	33.21	5.04	1.66	25.48	0	10.64	33.21	5.04	1.66	25.47	252	0.00
						10	9.27	33.14	4.17	1.65	25.64	236	0.02
11	9.16	33.15	4.16	1.66	25.65	20	8.41	33.35	4.78	1.83	25.94	208	0.05
21	8.36	33.36	4.82	1.84	25.94	30	8.29	33.38	4.74	1.88	25.98	204	0.07
32	8.27	33.39	4.66	1.89	25.98	50	7.96	33.50	2.89	2.06	26.12	191	0.11
52	7.92	33.52	2.76	2.08	26.16	75	7.51	33.76	2.35	2.26	26.39	166	0.15
78	7.46	33.78	2.31	2.28	26.42	100	7.17	33.88	2.03	2.33	26.54	152	0.19
104	7.13	33.89	1.99	2.34	26.56	150	6.81	33.94	2.16	2.33	26.63	144	0.26
157	6.78	33.95	2.15	2.34	26.64	200	6.72	34.05	1.79	2.43	26.73	135	0.34
209	6.70	34.06	1.72	2.44	26.74	250	6.51	34.08	1.43	2.44	26.78	131	0.40
314	6.24	34.10	1.08	2.47	26.84	300	6.30	34.09	1.14	2.46	26.82	128	0.47
522	5.53	34.16	0.64	2.71	26.97	400	5.91	34.13	0.76	2.54	26.90	121	0.59
						500	5.59	34.15	0.63	2.67	26.95	117	0.71

BROWN BEAR; June 17, 1955; missing, 0418 GCT; 42°54'N, 125°08'W; sounding, 1000 fm; wind, calm; weather, overcast; sea, smooth.

108-15

0	10.15	32.45	6.71	1.08	24.95	0	10.15	32.45	6.71	1.08	24.96	300	0.00
11	8.70	32.58	6.28	1.54	25.29	10	8.80	32.56	6.35	1.51	25.26	272	0.03
21	8.07	32.83	5.22	1.62	25.58	20	8.12	32.81	5.31	1.61	25.56	244	0.06
31	7.80	33.05	4.48	1.77	25.80	30	7.82	33.03	4.55	1.75	25.78	223	0.08
52	7.60	33.51	3.29	2.16	26.19	50	7.61	33.48	3.37	2.14	26.16	187	0.12
79	7.62	33.72	2.90	2.23	26.37	75	7.63	33.69	2.96	2.23	26.32	172	0.16
105	7.39	33.83	2.55	2.18	26.47	100	7.43	33.81	2.60	2.18	26.44	161	0.21
159	6.98	33.93	2.53	2.33	26.60	150	7.06	33.92	2.55	2.32	26.58	149	0.28
210a)	6.55b)	33.97b)	2.27b)	2.32b)	26.68	200	6.58	33.95	2.27	2.26	26.67	141	0.36
313a)	6.18c)	34.10c)	1.11c)	2.68c)	26.84	250	6.39	34.02	1.69	2.40	26.75	134	0.42
						300	6.21	34.08	1.18	2.54	26.82	128	0.49
210a)	6.46b)	33.95b)	2.13b)	2.20b)	26.68	400	5.64	34.15	0.77	2.64	26.95	117	0.61
314a)	6.14c)	34.11c)	1.01c)	2.46c)	26.86	500	5.14	34.20	0.53	2.68	27.05	108	0.72
521	5.05	34.21	0.48	2.68	27.07	600	4.80	34.25	0.39	2.60	27.13	101	0.83
786	4.28	34.34	0.25	2.56	27.25	700	4.51	34.30	0.30	2.55	27.20	95	0.92
1054	3.66	34.43	0.16	2.89	27.38	800	4.25	34.35	0.24	2.58	27.27	89	1.02
1589	2.53	34.54	0.88	2.96	27.58	1000	3.78	34.41	0.15	2.84	27.36	81	1.19
						1200	3.34	34.47	0.24	2.99	27.45	73	1.34
						1500	2.71	34.53	0.68	3.00	27.56	63	1.54

a) On this cruise there was usually a two-bottle depth overlap between the shallow and the deep cast; both the lower two bottles of the shallow cast and the upper two bottles of the deep cast were arranged to sample at 200 and 300 meters. All values have been tabulated; footnotes are included where necessary.

b) Smooth curve drawn between these two points.

c) Smooth curve drawn between these two points.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

108-16

BROWN BEAR; June 17, 1955; missing, 1250 GCT; 42°56'N, 125°54'W; sounding, 1630 fm; wind, 220°, force 4; weather, slight drizzle; sea, slight.

0	12.65	31.89	6.23	0.50	24.08	0	12.65	31.89	6.23	0.51	24.08	385	0.00
11	12.63	31.90	6.19	0.50	24.09	10	12.64	31.89	6.19	0.51	24.08	385	0.04
21	12.37	32.03	6.23	0.52	24.23	20	12.40	32.01	6.23	0.53	24.22	372	0.08
32	12.04	32.25	6.27	0.57	24.48	30	12.14	32.21	6.26	0.56	24.42	352	0.11
53	9.79	32.52	6.51	0.82	25.08	50	10.02	32.49	6.48	0.79	25.01	296	0.18
79	8.97	32.66	6.43	0.98	25.31	75	9.08	32.64	6.45	0.95	25.28	271	0.25
105	8.42	32.79	6.17	1.15	25.50	100	8.51	32.75	6.27	1.11	25.46	255	0.31
158	7.77	33.66	3.40	1.96	26.28	150	7.86	33.57	3.70	1.88	26.19	186	0.42
209	7.28a)	33.91	2.40a)	2.16a)	26.55	200	7.34	33.87	2.60	2.17	26.50	157	0.51
314	6.30b)	34.02	1.67b)	2.43b)	26.76	250	6.89	33.95	2.12	2.31	26.63	146	0.59
						300	6.46	34.01	1.70	2.43	26.73	136	0.66
198	7.31a)	33.87	2.68a)	2.22a)	26.52	400	5.63	34.07	1.04	2.54	26.89	122	0.79
297	6.52b)	34.02	1.65b)	2.46b)	26.74	500	4.97	34.13	0.57	2.66	27.01	111	0.90
500	4.97	34.13	0.57	2.66	27.00	600	4.62	34.21	0.40	3.00	27.11	102	1.01
758	4.13	34.32	0.25	3.04	27.26	700	4.30	34.28	0.29	3.09	27.20	94	1.11
1020	3.47	34.45	0.31	1.79c)	27.42	800	4.02	34.34	0.25	2.77	27.28	87	1.20
1551	2.43	34.54	0.84	2.41	27.59	1000	3.52	34.44	0.30	1.85	27.41	76	1.36
2085	1.89	34.61	0.63	2.61	27.69	1200	3.06	34.48	0.57	2.05	27.49	69	1.50
						1500	2.51	34.53	0.82	2.37	27.58	60	1.70
						2000	1.94	34.60	0.71	2.61	27.68	51	1.98

108-17

BROWN BEAR; June 17, 1955; missing, 2351 GCT; 42°52'N, 127°04'W; sounding, 1500 fm; wind, 270°, force 2; weather, cloudy; sea, slight.

0	12.70	32.65	6.24	0.62	24.66	0	12.70	32.65	6.24	0.63	24.65	330	0.00
11	12.24	32.65	6.27	0.62	24.75	10	12.29	32.65	6.27	0.63	24.73	322	0.03
21	11.69	32.68	6.31	0.62	24.86	20	11.72	32.68	6.31	0.63	24.86	310	0.06
32	11.63	32.70	6.31	0.70	24.90	30	11.65	32.70	6.31	0.69	24.89	308	0.10
53	11.22	32.70	6.10	0.70	24.97	50	11.35	32.70	6.12	0.69	24.95	303	0.16
79	9.16	32.79	6.37	1.03	25.38	75	9.40	32.78	6.37	0.99	25.34	266	0.23
104	8.26	32.87	6.08	1.23	25.58	100	8.37	32.85	6.14	1.20	25.55	246	0.29
158	7.92	33.40	4.70	1.59	26.05	150	7.98	33.32	4.92	1.54	25.98	206	0.40
210	7.48d)	33.86a)	3.45a)	1.73a)	26.47	200	7.56	33.82	3.47	1.79	26.43	164	0.50
315	5.97	33.93b)	2.44b)	1.96b)	26.72	250	6.83	33.90	2.87	1.92	26.60	148	0.58
						300	6.16	33.93	2.41	2.03	26.71	138	0.65
207	7.04c)	33.89a)	3.11a)	1.90a)	26.57	400	5.30	33.99	1.58	2.17	26.86	124	0.78
309	6.08	33.95b)	2.16b)	2.14b)	26.73	500	4.68	34.05	0.94	2.29	26.98	114	0.90
522	4.57	34.07	0.83	2.32	27.01	600	4.42	34.15	0.56	2.43	27.09	104	1.01
788	4.02	34.30	0.18	2.56	27.25	700	4.21	34.23	0.31	2.52	27.17	97	1.11
1054	3.39	34.44	0.25	2.42	27.42	800	3.99	34.31	0.18	2.55	27.26	89	1.20
1588	2.39	34.56	0.46	2.66	27.61	1000	3.51	34.42	0.24	2.43	27.40	77	1.36
2126	1.86	34.61	0.97	2.62	27.69	1200	3.07	34.48	0.28	2.51	27.49	69	1.51
						1500	2.52	34.55	0.40	2.64	27.59	59	1.70
						2000	1.94	34.60	0.83	2.65	27.68	51	1.98

a) Smooth curve drawn between these two points.

b) Smooth curve drawn between these two points.

c) This value deviates from smooth curve; not used.

d) This value used in drawing smooth curve.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 18, 1955; missing, 1529 GCT; 42°49'N, 128°51'W; sounding, 1800 fm; wind, 325°, force 2; weather, cloudy; sea, slight.

108-18

0	12.36	32.81	6.31	0.59	24.84	0	12.36	32.81	6.31	0.59	24.84	312	0.00
11	12.33	32.80	6.33	0.58	24.85	10	12.35	32.80	6.32	0.58	24.84	312	0.03
21	11.88	32.81	6.45	0.58	24.93	20	11.91	32.81	6.44	0.58	24.93	304	0.06
32	11.81	32.80	6.45	0.58	24.94	30	11.88	32.80	6.44	0.57	24.93	304	0.09
53	9.66	32.77	6.66	0.84	25.29	50	9.90	32.77	6.65	0.81	25.25	274	0.15
79	8.60	32.76	6.55	1.01	25.45	75	8.72	32.76	6.57	0.99	25.43	257	0.22
105	8.22	32.81	6.44	1.10	25.55	100	8.29	32.79	6.50	1.07	25.52	249	0.28
158	7.46	33.42	4.72	1.62	26.12	150	7.51	33.34	4.95	1.55	26.06	198	0.39
211	7.58	33.87a)	3.07c)	2.11a)	26.47	200	7.62	33.79	3.68	1.90	26.40	167	0.48
315	6.26	33.95b)	2.33	2.25b)	26.71	250	7.03	33.88	3.04	2.05	26.55	153	0.56
						300	6.44	33.93	2.51	2.17	26.67	142	0.64
206	7.64	33.82a)	3.52d)	1.78a)	26.43	400	5.69	34.01	1.58	2.42	26.83	128	0.77
310	6.36	33.93b)	2.44	2.14b)	26.67	500	5.10	34.09	0.88	2.62	26.96	116	0.89
520	4.99	34.10	0.77	2.66	26.98	600	4.66	34.16	0.57	2.79	27.07	106	1.00
786	4.02	34.29	0.25	2.99	27.24	700	4.30	34.23	0.37	2.92	27.16	98	1.11
1051	3.37	34.43	0.12	3.00	27.41	800	3.98	34.30	0.24	2.99	27.25	90	1.20
1585	2.39	34.56	0.83	2.87	27.61	1000	3.49	34.41	0.12	3.00	27.39	77	1.37
2123	1.87	34.62	0.17c)	2.83	27.70	1200	3.05	34.47	0.46	2.95	27.48	69	1.51
						1500	2.52	34.54	0.81	2.88	27.58	60	1.71
						2000	1.95	34.61	0.44	2.83	27.69	50	1.98

BROWN BEAR; June 19, 1955; missing, 0501 GCT; 41°42'N, 130°33'W; sounding, 1800 fm; wind, 115°, force 3; weather, cloudy; sea, smooth.

108-19

0	12.83	32.83	6.24	0.66	24.77	0	12.83	32.83	6.24	0.67	24.77	319	0.00
11	12.56	32.82	6.33	0.64	24.81	10	12.58	32.82	6.33	0.65	24.81	315	0.03
21	12.42	32.83	6.33	0.58	24.85	20	12.43	32.83	6.33	0.59	24.85	312	0.06
32	12.33	32.83	6.33	0.52	24.87	30	12.35	32.83	6.33	0.53	24.86	311	0.09
53	12.10	32.82	6.37	0.66	24.91	50	12.21	32.82	6.36	0.63	24.88	309	0.16
80	9.85	32.79	6.43	0.98	25.28	75	10.15	32.79	6.46	0.93	25.22	277	0.23
105	9.09	32.84	6.01	1.18	25.43	100	9.22	32.82	6.13	1.13	25.40	260	0.30
159	8.18	33.53	3.84	1.85	26.11	150	8.31	33.44	4.16	1.76	26.03	202	0.41
212	7.60a)	33.88	2.42	2.22	26.47	200	7.76	33.83	2.69	2.15	26.41	166	0.50
317	6.66b)	34.00	1.69a)	2.40d)	26.69	250	7.27	33.93	2.18	2.30	26.56	152	0.58
						300	6.83	33.99	1.86	2.38	26.67	142	0.66
207	7.71a)	33.87	2.53	2.20	26.45	400	6.22	34.03	1.36	2.41	26.78	133	0.80
311	6.79b)	33.99	1.85a)	1.63c)	26.67	500	5.67	34.07	0.96	2.45	26.88	124	0.92
522	5.55	34.08	0.88	2.47	26.89	600	5.13	34.14	0.66	2.61	27.00	113	1.04
786	4.30	34.26	0.31	2.84	27.19	700	4.65	34.21	0.44	2.75	27.11	103	1.15
1051	3.58	34.39	0.30	2.90	27.36	800	4.26	34.27	0.31	2.85	27.20	95	1.25
1584	2.50	34.52	0.76	2.70	27.57	1000	3.71	34.37	0.29	2.90	27.34	83	1.43
2122	1.89	34.61	1.62	2.81	27.69	1200	3.23	34.43	0.39	2.81	27.43	74	1.58
						1500	2.64	34.50	0.66	2.71	27.54	64	1.79
						2000	1.99	34.59	1.39	2.76	27.67	52	2.08

- a) Smooth curve drawn between these two points.
b) Smooth curve drawn between these two points.
c) This value deviates from smooth curve; not used.
d) This value used in drawing smooth curve.

UW

BB-108

OBSERVED						COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t		Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L		m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

108-20

BROWN BEAR; June 19, 1955; missing, missing, 2122 GCT; 40°29'N, 132°11'W; sounding, 2115 fm; wind, 250°, force 2; weather, overcast; sea, slight.

0	13.53	32.94	6.22	0.54	24.72	0	13.53	32.94	6.22	0.55	24.71	324	0.00
11	13.07	32.95	6.25	0.56	24.81	10	13.10	32.95	6.25	0.56	24.81	315	0.03
21	12.98	32.97	6.25	0.56	24.85	20	12.99	32.97	6.25	0.57	24.84	312	0.06
32	12.81	32.96	6.28	0.53	24.88	30	12.89	32.96	6.27	0.53	24.86	311	0.09
53	10.71	32.93	6.62	0.63	25.24	50	10.95	32.94	6.60	0.61	25.20	278	0.15
80	9.33	32.83	6.56	0.88	25.39	75	9.51	32.84	6.57	0.85	25.37	263	0.22
106	8.99	32.83	6.48	0.92	25.44	100	9.07	32.82	6.52	0.91	25.42	258	0.29
						150	8.29	33.09	5.87	1.27	25.75	227	0.41
155	8.24	33.13	5.77	1.31	25.80	200	8.16	33.65	4.63	1.60	26.21	185	0.51
206	8.13a)	33.68a)	4.58a)	1.64	26.24	250	7.35	33.82	3.80	1.88	26.46	162	0.60
302	6.57	33.92b)	3.10	2.16b)	26.65	300	6.60	33.93	3.09	2.13	26.65	144	0.67
						400	5.71	34.00	1.92	2.46	26.82	129	0.81
206	8.10a)	33.71a)	4.40a)	1.63	26.27	500	5.01	34.07	1.06	2.73	26.96	116	0.93
312	6.45	33.95b)	2.90	2.16b)	26.69	600	4.58	34.14	0.71	2.89	27.06	107	1.04
525	4.86	34.09	0.90	2.78	26.98	700	4.23	34.22	0.49	3.01	27.16	98	1.15
790	3.96	34.30	0.35	3.10	27.25	800	3.93	34.31			27.27	88	1.24
1055	3.34	33.08c)	-	-	26.35	1000	3.46	34.40			27.38	78	1.40
1588	2.43	34.53	0.90	3.02	27.58	1200	3.06	34.46			27.47	70	1.55
2123	1.86	-	-	-	-	1500	2.56	34.51			27.56	62	1.75
						2000	1.96						

108-21

BROWN BEAR; June 20, 1955; missing, 1316, missing GCT; 39°20'N, 133°41'W; sounding, 2460 fm; wind, 180°, force 2; weather, cloudy; sea, slight.

0	14.22	33.14	5.99	0.44	24.73	0	14.22	33.14	5.99	0.44	24.73	323	0.00
11	14.24	33.14	5.98	0.46	24.73	10	14.24	33.14	5.98	0.46	24.72	323	0.03
21	14.22	33.14	6.01	0.46	24.73	20	14.23	33.14	6.01	0.46	24.72	324	0.06
32	13.92	33.13	6.05	0.46	24.78	30	14.01	33.13	6.04	0.46	24.76	320	0.10
53	11.91	33.22	6.43	0.46	25.25	50	12.10	33.21	6.41	0.46	25.20	279	0.16
79	11.55	33.19	6.24	0.54	25.28	75	11.61	33.19	6.27	0.53	25.28	272	0.22
105	11.07	33.23	6.03	0.71	25.40	100	11.19	33.22	6.07	0.68	25.38	263	0.29
157	9.22	33.24	5.49	1.18	25.73	150	9.41	33.21	5.58	1.12	25.67	235	0.42
209	8.46	33.65a)	4.76	1.52a)	26.16	200	8.55	33.63	4.86	1.50	26.14	192	0.52
314	7.06	33.93	3.36	1.57c)	26.59	250	7.85	33.79	4.24	1.70	26.37	171	0.62
						300	7.21	33.90	3.66	1.89	26.55	154	0.70
204	8.45	33.69a)	4.80	1.57a)	26.21	400	6.03	33.96	2.48	2.34	26.75	136	0.84
304	7.14	33.92	3.76	1.92d)	26.59	500	5.13	34.01	1.53	2.69	26.90	122	0.97
510	5.06	34.02	1.46	2.72	26.91	600	4.72	34.11	0.95	2.87	27.02	111	1.09
771	4.14	34.25	0.35	3.06	27.20	700	4.37	34.20	0.55	2.99	27.13	101	1.19
1033	3.41	34.39	0.28	3.14	27.38	800	4.05	34.27	0.32	3.07	27.22	93	1.29
1560	2.43	34.54	0.80	3.02	27.59	1000	3.49	34.37	0.28	3.13	27.36	80	1.46
						1200	3.05	34.45	0.34	3.09	27.46	71	1.61
2100	1.88	34.61	2.33	3.00	27.69	1500	2.52	34.53	0.68	3.03	27.57	61	1.81
						2000	1.95	34.60	1.97	3.00	27.68	51	2.09

- a) Smooth curve drawn between these two points.
b) Smooth curve drawn between these two points.
c) This value deviates from smooth curve; not used.
d) This value used in drawing smooth curve.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 21, 1955; missing, 0655 GCT; 37°55'N, 135°26'W; sounding, 2650 fm; wind, 355°, force 4; weather, partly cloudy; sea, moderate.

108-22

0	15.03	33.21	5.88	0.48	24.62	0	15.03	33.21	5.88	0.48	24.61	334	0.00
11	15.04	33.19	5.92	0.44	24.60	10	15.06	33.19	5.92	0.44	24.59	336	0.03
21	14.62	33.16	5.95	0.45	24.66	20	14.66	33.16	5.95	0.45	24.65	331	0.07
32	14.14	33.16	5.99	0.45	24.77	30	14.25	33.16	5.98	0.45	24.74	323	0.10
53	12.26	33.24	6.28	0.47	25.19	50	12.46	33.23	6.26	0.47	25.15	284	0.16
79	11.56	33.22	6.22	0.54	25.31	75	11.61	33.22	6.23	0.54	25.30	270	0.23
105	11.72	33.30	6.10	0.48	25.35	100	11.75	33.29	6.18	0.47	25.33	268	0.30
159	9.47	33.32	3.34a)	1.16	25.75	150	9.73	33.29	3.54	1.07	25.68	234	0.42
211	8.77	33.78	2.21a)	1.52	26.21	200	8.90	33.66	3.96	1.45	26.11	195	0.53
317	6.88	34.00b)	2.51	2.08	26.67	250	8.00	33.84	3.35	1.72	26.38	169	0.62
						300	7.17	33.96	2.72	1.96	26.60	149	0.70
203	8.84	33.64	4.01	1.46	26.10	400	5.91	33.98	2.14	2.25	26.78	133	0.84
302	7.17	33.95b)	2.71	1.93	26.59	500	4.98	34.01	1.62	2.49	26.92	120	0.97
511	4.90	34.02	1.57	2.52	27.93	600	4.65	34.13	0.94	2.73	27.05	108	1.08
773	4.14	34.29	0.20	3.00	27.23	700	4.36	34.23	0.44	2.91	27.16	98	1.18
1035	3.34	34.42	0.26	3.02	27.42	800	4.05	34.31	0.20	3.00	27.25	90	1.28
1564	2.50	34.56	1.03	2.96	27.60	1000	3.43	34.40	0.24	3.02	27.39	78	1.45
2096	1.90	34.61	1.99	2.96	27.69	1200	3.05	34.47	0.48	2.99	27.48	69	1.59
						1500	2.59	34.55	0.93	2.96	27.58	60	1.79
						2000	1.99	34.61	1.80	2.96	27.68	51	2.06

BROWN BEAR; June 21, 1955; missing, 1825 GCT; 36°54'N, 136°42'W; sounding, 2900 fm; wind, 325°, force 4; weather, cloudy; sea, moderate.

108-23

0	15.95	33.42	5.71	0.41	24.56	0	15.95	33.42	5.71	0.41	24.57	338	0.00
11	15.94	33.40	5.75	0.41	24.56	10	15.94	33.40	5.75	0.41	24.55	340	0.03
21	15.90	33.41	5.77	0.40	24.57	20	15.93	33.41	5.76	0.40	24.56	339	0.07
32	15.16	33.44	5.91	0.40	24.75	30	15.31	33.44	5.89	0.40	24.72	324	0.10
51	13.34	33.47	6.19	0.40	25.17	50	13.41	33.47	6.18	0.40	25.15	284	0.16
78	12.55	33.46	6.14	0.40	25.30	75	12.63	33.46	6.15	0.39	25.29	271	0.23
102	12.00	33.47	5.99	0.54	25.43	100	12.05	33.47	6.00	0.53	25.41	260	0.30
154	9.99	33.43	5.60	1.00	25.74	150	10.10	33.41	5.63	0.97	25.72	232	0.42
204	9.28	33.76	5.26	1.23b)	26.13	200	9.31	33.74	5.30	1.23	26.10	196	0.53
306	7.99	33.97	4.04	1.90	26.49	250	8.62	33.94	4.69	1.50	26.37	171	0.62
						300	8.06	33.97	4.11	1.86	26.48	161	0.70
183	9.42	33.64	-	1.23b)	26.01	400	6.25	33.96	3.00	2.15	26.72	138	0.85
276	8.30	33.98	-	1.68	26.45	500	5.09	34.01	2.13	2.42	26.90	121	0.98
467	5.31	33.97	2.37	2.32	26.85	600	4.49	34.11	1.48	2.67	27.05	108	1.10
710	3.98	34.20	0.96	2.88	27.17	700	4.02	34.19	1.00	2.86	27.16	97	1.20
960	3.39	34.35	0.53	3.08	27.35	800	3.76	34.26	0.75	2.97	27.24	90	1.29
1473	2.49	34.54	1.06	2.97	27.58	1000	3.31	34.37	0.56	3.06	27.38	78	1.46
1990	1.95	34.62	1.89	3.12	27.69	1200	2.92	34.45	0.74	3.00	27.48	69	1.61
						1500	2.45	34.55	1.10	2.97	27.60	58	1.80

a) This value deviates from smooth curve; not used.

b) Smooth curve drawn between these two points.

UW	OBSERVED					COMP	INTERPOLATED					COMPUTED		
	Z	T	S	O ₂	PO ₄ -P		Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
BB-108	m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

108-24 BROWN BEAR; June 22, 1955; missing, 1145 GCT; 35°39'N, 138°12'W; sounding, 2800 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate.

0	16.50	33.82	5.67	0.26	24.75	0	16.50	33.82	5.67	0.27	24.75	321	0.00
11	16.53	33.81	5.70	0.37	24.74	10	16.53	33.81	5.70	0.37	24.73	322	0.03
21	16.52	33.80	5.68	0.24	24.73	20	16.57	33.81	5.67	0.25	24.72	324	0.06
32	15.14	33.64	5.95	0.33	24.92	30	15.36	33.66	5.91	0.32	24.88	309	0.10
52	13.74	33.65	6.06	0.28	25.23	50	13.83	33.65	6.05	0.28	25.20	279	0.16
79	13.48	33.71	6.05	0.39	25.32	75	13.56	33.71	6.06	0.31	25.30	270	0.22
105	12.66	33.64	5.91	0.38	25.42	100	12.82	33.65	5.95	0.36	25.40	261	0.29
158	10.85	33.58	5.54	0.75	25.72	150	11.05	33.56	5.60	0.70	25.67	237	0.41
211	10.20	33.87	5.26a)	1.03a)	26.06	200	10.32	33.82	5.31	1.00	26.00	206	0.52
318	8.31	33.99	4.20	1.68	26.45	250	9.44	33.92	4.84	1.30	26.22	185	0.62
						300	8.57	33.97	4.32	1.58	26.40	169	0.71
201	10.27	33.83	5.26a)	1.04a)	26.01	400	6.81	33.97	3.01	2.18	26.66	145	0.87
303	8.50	33.98	4.23	1.60	26.41	500	5.48	33.99	1.94	2.66	26.84	128	1.00
511	5.36	33.99	1.84	2.71	26.85	600	4.90	34.07	1.21	3.00	26.97	116	1.13
772	4.17	34.22	0.43	3.34	27.17	700	4.45	34.16	0.68	3.23	27.09	105	1.24
1033	3.44	34.41	0.30	3.34	27.40	800	4.08	34.24	0.40	3.34	27.20	95	1.34
1562	2.48	34.58	0.93	3.21	27.61	1000	3.52	34.39	0.30	3.34	27.37	79	1.51
2092	1.90	34.61	1.71	3.08	27.69	1200	3.10	34.48	0.48	3.30	27.48	69	1.66
						1500	2.57	34.57	0.85	3.23	27.60	58	1.85
						2000	1.97	34.61	1.57	3.10	27.68	50	2.12

108-25 BROWN BEAR; June 23, 1955; missing, 0159 GCT; 34°29'N, 139°29'W; sounding, 2770 fm; wind, 340°, force 1; weather, partly cloudy; sea, slight.

0	17.68	34.05	5.64	0.13	24.64	0	17.68	34.05	5.64	0.13	24.64	331	0.00
11	17.07	34.06	5.71	0.15	24.79	10	17.10	34.06	5.71	0.15	24.79	317	0.03
21	17.02	34.06	5.67	0.17	24.82	20	17.03	34.06	5.67	0.17	24.81	316	0.06
33	16.90	34.06	5.69	0.24	24.84	30	16.97	34.06	5.68	0.23	24.82	315	0.10
54	15.79	34.06	5.82	0.25	25.09	50	15.96	34.06	5.80	0.25	25.05	293	0.16
80	15.16	33.99	5.87	0.16	25.17	75	15.25	34.00	5.87	0.17	25.17	283	0.23
106	14.91	33.96	5.73	0.18	25.21	100	14.95	33.96	5.76	0.18	25.20	280	0.30
160	15.02	34.08	5.77	0.15	25.28	150	15.14	34.09	5.78	0.13	25.26	276	0.44
211	13.15	33.80	5.50	0.44	25.44	200	13.79	33.89	5.64	0.31	25.39	265	0.57
314	9.08	33.91a)	4.58	1.45	26.27	250	11.57	33.89	5.22	0.83	25.83	224	0.70
						300	9.61	33.91	4.73	1.31	26.19	190	0.80
204	13.89	33.91	5.71	0.27	25.39	400	7.48	33.93	3.44	1.97	26.53	158	0.97
308	9.38	33.93a)	4.66	1.37	26.24	500	5.96	33.97	2.33	2.48	26.77	135	1.12
520	5.72	33.98	2.13	2.56	26.80	600	5.23	34.07	1.40	2.79	26.93	120	1.24
786	4.32	34.25	0.35	3.16	27.18	700	4.70	34.17	0.73	3.01	27.07	107	1.36
1053	3.56	34.43	0.38	3.33	27.39	800	4.28	34.26	0.35	3.17	27.19	96	1.46
1587	2.52	34.58	1.06	3.14	27.61	1000	3.70	34.40	0.36	3.31	27.36	81	1.64
2122	1.90	34.61	1.78	3.04	27.69	1200	3.23	34.48	0.56	3.27	27.47	71	1.79
						1500	2.66	34.56	0.95	3.16	27.59	60	1.98
						2000	2.00	34.61	1.61	3.05	27.68	51	2.26

a) Smooth curve drawn between these two points.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 23, 1955; missing, 1434 GCT; 33°35'N, 141°05'W; sounding, 2770 fm; wind, 090°, force 1; weather, partly cloudy; sea, slight.

108-26

0	17.88	34.10	5.60	0.18	24.63	0	17.88	34.10	5.60	0.18	24.63	332	0.00
11	17.82	34.10	5.60	0.19	24.65	10	17.84	34.10	5.60	0.19	24.64	331	0.03
21	17.49	34.09	5.57	0.19	24.71	20	17.53	34.09	5.57	0.19	24.71	325	0.07
32	17.03	34.07	5.70	0.18	24.82	30	17.13	34.07	5.68	0.18	24.79	318	0.10
53	15.61	34.00	5.87	0.18	25.09	50	15.75	34.01	5.86	0.18	25.06	292	0.16
80	15.33	33.98	5.88	0.16	25.14	75	15.38	33.98	5.88	0.16	25.12	287	0.23
106	15.04	33.98	5.81	0.12	25.20	100	15.10	33.98	5.84	0.13	25.18	282	0.30
160	14.80	34.04	5.54	0.29	25.29	150	15.14	34.06	5.59	0.23	25.24	278	0.44
212	10.96	33.77a)	5.26	0.85	25.84	200	11.68	33.77	5.35	0.72	25.71	233	0.57
318	9.14a)	34.08b)	4.55a)	1.47	26.40	250	10.34	33.90	5.02	1.06	26.06	202	0.68
						300	9.40	34.03	4.64	1.36	26.32	178	0.77
206	11.32	33.71a)	5.33	0.76	25.74	400	7.42	33.98	3.48	1.95	26.58	153	0.94
308	9.17a)	34.04b)	4.50a)	1.41	26.35	500	5.88	33.96	2.43	2.43	26.77	135	1.08
518	5.66	33.96	2.26	2.50	26.79	600	5.11	34.06	1.48	2.75	26.94	119	1.21
782	4.18	34.24	0.38	3.12	27.18	700	4.55	34.16	0.76	2.99	27.08	106	1.32
1045	3.51	34.43	0.37	3.19	27.40	800	4.13	34.26	0.37	3.13	27.21	94	1.42
1577	2.50	34.58	1.10	3.12	27.61	1000	3.62	34.40	0.36	3.18	27.37	80	1.60
2109	1.90	34.62	1.83	3.07	27.70	1200	3.17	34.48	0.58	3.17	27.48	70	1.75
						1500	2.62	34.57	1.00	3.13	27.60	59	1.94
						2000	1.99	34.62	1.68	3.08	27.69	50	2.21

BROWN BEAR; June 24, 1955; missing, 1106 GCT; 35°07'N, 142°49'W; sounding, 2940 fm; wind, 035°, force 1; weather, partly cloudy; sea, calm.

108-27

0	18.22	34.09	5.50	0.35	24.54	0	18.22	34.09	5.50	0.35	24.54	340	0.00
11	17.47	34.08	5.59	0.33	24.71	10	17.51	34.08	5.59	0.33	24.71	325	0.03
21	17.30	34.06	5.61	0.34	24.74	20	17.33	34.06	5.61	0.34	24.73	323	0.06
32	16.87	34.04	5.71	0.33	24.82	30	16.98	34.05	5.69	0.33	24.81	316	0.10
53	14.92	33.93	5.95	0.35	25.19	50	15.12	33.94	5.92	0.35	25.15	284	0.16
80	14.30	33.93	5.94	0.27	25.31	75	14.40	33.93	5.94	0.27	25.30	271	0.23
106	13.84	33.90	5.88	0.33	25.40	100	13.99	33.91	5.90	0.31	25.37	264	0.29
160	11.48	33.71	5.59	0.78	25.70	150	11.78	33.71	5.64	0.71	25.65	238	0.42
213	10.88a)	33.92	5.25a)	0.98a)	25.98	200	11.04	33.87	5.31	0.94	25.91	215	0.53
318	8.88b)	34.05	4.48b)	1.69	26.41	250	10.10	33.97	4.96	1.25	26.15	192	0.63
						300	9.15	34.04	4.55	1.56	26.36	173	0.72
207	10.92a)	33.87	5.22a)	1.00a)	25.94	400	7.20	34.01	3.27	2.10	26.63	148	0.88
310	8.90b)	34.05	4.37b)	1.58	26.41	500	5.69	34.01	2.18	2.52	26.83	129	1.02
524	5.40	34.02	1.97	2.61	26.88	600	4.96	34.09	1.47	2.81	26.98	115	1.14
788	4.10	34.25	0.64	3.12	27.20	700	4.46	34.18	0.95	3.00	27.11	103	1.25
1053	3.43	34.43	0.45	3.14	27.41	800	4.07	34.26	0.63	3.12	27.21	94	1.35
1587	2.50	34.55	0.93	3.00	27.59	1000	3.55	34.40	0.46	3.14	27.38	79	1.52
2121	1.89	34.63	1.69	2.91	27.70	1200	3.14	34.47	0.55	3.10	27.47	70	1.67
						1500	2.63	34.53	0.83	3.02	27.57	62	1.87
						2000	2.00	34.62	1.49	2.93	27.69	50	2.15

a) Smooth curve drawn between these two points.

b) Smooth curve drawn between these two points.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

108-28

BROWN BEAR; June 25, 1955; missing, 0629 GCT; 36°25'N, 144°37'W; sounding, 2900 fm; wind, 260°, force 4; weather, clear; sea, smooth.

0	17.88	33.86	5.54	0.32	24.44	0	17.88	33.86	5.54	0.33	24.45	349	0.00
11	17.85	33.85	5.61	0.31	24.46	10	17.88	33.85	5.61	0.31	24.44	350	0.04
21	17.26	33.78	5.66	0.28	24.53	20	17.35	33.78	5.64	0.28	24.52	343	0.07
32	15.90	33.81	5.95	0.29	24.88	30	16.15	33.81	5.90	0.29	24.82	315	0.10
53	13.30	33.58	6.12	0.34	25.25	50	13.55	33.60	6.10	0.34	25.22	277	0.16
79	12.94	33.68	6.05	0.34	25.41	75	13.00	33.67	6.06	0.33	25.38	262	0.23
105	12.44	33.68	5.92	0.45	25.51	100	12.54	33.68	5.95	0.43	25.48	253	0.29
158	11.10	33.66	5.78	0.72	25.74	150	11.26	33.64	5.84	0.67	25.69	234	0.42
207	10.49a)	34.02a)	5.23	1.08	26.12	200	10.53	33.92	5.29	1.03	26.04	202	0.52
312	8.66b)	33.89b)	4.48a)	1.60a)	26.31	250	9.67	33.95	4.92	1.28	26.21	187	0.62
						300	8.82	33.96	4.54	1.52	26.35	174	0.71
201	10.45a)	33.87a)	5.26	1.03	26.02	400	6.93	33.94	3.51	1.99	26.62	149	0.87
302	8.75b)	34.02b)	4.47a)	1.51a)	26.40	500	5.49	33.96	2.59	2.37	26.82	130	1.01
508	5.40	33.96	2.52	2.40	26.83	600	4.81	34.03	1.74	2.67	26.95	118	1.14
768	3.98	34.16	0.73	3.00	27.14	700	4.28	34.11	1.06	2.89	27.07	106	1.25
1031	3.32	34.36	0.27	3.09	27.37	800	3.89	34.19	0.65	3.02	27.18	97	1.35
1561	2.52	34.53	0.85	2.90	27.57	1000	3.39	34.34	0.30	3.09	27.34	82	1.53
2093	1.93	34.61	1.66	2.71	27.69	1200	3.04	34.42	0.43	3.03	27.44	73	1.68
						1500	2.60	34.51	0.77	2.92	27.55	63	1.89
						2000	2.02	34.60	1.50	2.74	27.67	52	2.17

108-29

BROWN BEAR; June 26, 1955; missing, 0012 GCT; 37°32'N, 142°57'W; sounding, 2800 fm; wind, 270°, force 4; weather, overcast; sea, slight.

0	17.53	33.82	5.67	0.32	24.51	0	17.53	33.82	5.67	0.32	24.50	344	0.00
11	17.39	33.80	5.68	0.38	24.52	10	17.42	33.80	5.68	0.39	24.51	343	0.03
21	16.86	33.82	5.75	0.30	24.65	20	16.96	33.82	5.72	0.30	24.64	332	0.07
31	15.34	33.83	6.05	0.44	25.02	30	15.46	33.83	6.03	0.43	24.99	299	0.10
52	14.17	33.89	6.18	0.35	25.31	50	14.27	33.89	6.17	0.35	25.29	270	0.16
78	12.97	33.82	6.16	0.36	25.50	75	13.13	33.83	6.16	0.34	25.48	253	0.22
104	11.39	33.64	6.10	0.66	25.67	100	11.58	33.66	6.13	0.62	25.65	237	0.28
154	10.54	33.83	5.48	0.99	25.97	150	10.60	33.81	5.51	0.96	25.94	210	0.40
205	9.89a)	34.04a)	5.21a)	1.30	26.24	200	9.91	34.01	5.20	1.28	26.21	185	0.49
306	8.26b)	34.03b)	4.37b)	1.67	26.48	250	9.08	34.02	4.78	1.47	26.36	172	0.58
						300	8.27	34.02	4.37	1.64	26.49	161	0.67
204	9.81a)	33.99a)	5.15a)	1.30	26.21	400	6.61	33.97	3.58	2.01	26.68	142	0.82
304	8.12b)	34.02b)	4.28b)	1.66	26.51	500	5.33	33.97	2.84	2.32	26.84	127	0.95
513	5.19	33.97	2.76	2.36	26.86	600	4.63	34.05	2.05	2.59	26.99	114	1.07
776	3.76	34.20	1.00	2.89	27.19	700	4.09	34.14	1.39	2.78	27.12	102	1.18
1039	3.15	34.37	0.38	2.96	27.39	800	3.70	34.22	0.92	2.90	27.22	92	1.28
1570	2.35	34.51	0.66	3.03	27.57	1000	3.23	34.35	0.44	2.95	27.37	79	1.45
2100	1.88	34.61	2.21	2.88	27.69	1200	2.87	34.42	0.34	3.00	27.46	71	1.60
						1500	2.44	34.49	0.55	3.03	27.55	63	1.80
						2000	1.94	34.59	1.81	2.93	27.67	52	2.08

a) Smooth curve drawn between these two points.

b) Smooth curve drawn between these two points.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 26, 1955; missing, 1117 GCT; 38°33'N, 141°31'W; sounding, 2900 fm; wind, 290°, force 3; weather, overcast; sea, slight.

108-30

0	16.64	33.37	5.76	0.46	24.38	0	16.64	33.37	5.76	0.46	24.37	357	0.00
11	16.60	33.39	5.77	0.40	24.39	10	16.63	33.39	5.77	0.40	24.39	355	0.04
21	15.91	33.39	5.87	0.41	24.55	20	16.08	33.39	5.84	0.41	24.51	344	0.07
32	12.45	33.30	6.44	0.45	25.21	30	12.91	33.31	6.37	0.44	25.12	286	0.10
53	12.01	33.31	6.17	0.49	25.30	50	12.07	33.31	6.19	0.49	25.29	271	0.16
79	11.62	33.35	6.10	0.46	25.40	75	11.66	33.35	6.12	0.47	25.39	261	0.22
104	11.56	33.36	6.09	0.53	25.41	100	11.56	33.36	6.09	0.52	25.42	259	0.29
157	11.68	33.50	6.08	0.53	25.50	150	11.76	33.49	6.10	0.51	25.48	254	0.42
210	10.17	33.43	5.81a)	0.94	25.71	200	10.51	33.42	5.89	0.84	25.65	239	0.54
315	7.58	33.91	2.24	2.48	26.50	250	9.02	33.66	4.09	1.66	26.09	198	0.65
						300	7.82	33.87	2.58	2.32	26.43	165	0.74
204	10.48	33.41	5.77a)	0.88	25.65	400	7.11	33.97	2.02	2.51	26.61	149	0.90
305	7.65	33.91	2.41	2.38	26.50	500	6.45	34.03	1.68	2.62	26.75	137	1.04
512	6.37	34.04	1.65	2.64	26.76	600	5.48	34.09	1.36	2.84	26.92	121	1.17
771	4.22	34.19	0.86	3.10	27.14	700	4.67	34.15	1.05	3.01	27.06	108	1.28
1032	3.46	34.38	0.28	3.16	27.36	800	4.13	34.21	0.76	3.11	27.17	98	1.39
1560	2.50	34.55	1.21	3.10	27.59	1000	3.54	34.36	0.31	3.16	27.35	82	1.57
2089	1.96	34.61	1.93	2.97	27.68	1200	3.11	34.45	0.59	3.15	27.46	72	1.72
						1500	2.59	34.54	1.12	3.11	27.58	61	1.92
						2000	2.02	34.61	1.83	3.00	27.68	51	2.20

BROWN BEAR; June 26, 1955; missing, 2209 GCT; 39°21'N, 140°28'W; sounding, 2800 fm; wind, 285°, force 4; weather, cloudy; sea, slight.

108-31

0	16.44	33.51	5.84	0.40	24.53	0	16.44	33.51	5.84	0.40	24.52	342	0.00
11	15.81	33.51	5.94	0.46	24.67	10	15.85	33.51	5.94	0.46	24.66	330	0.03
21	15.60	33.49	5.94	0.41	24.70	20	15.64	33.49	5.92	0.41	24.69	327	0.07
32	14.95	33.48	6.08	0.39	24.82	30	15.11	33.48	6.06	0.39	24.80	317	0.10
52	12.16	33.44	6.40	0.47	25.36	50	12.35	33.44	6.38	0.46	25.33	266	0.16
79	11.53	33.50	6.17	0.53	25.54	75	11.61	33.50	6.19	0.52	25.52	249	0.22
104	11.10	33.48	6.06	0.67	25.59	100	11.18	33.48	6.07	0.64	25.58	244	0.28
156	9.75	33.68	6.08	1.13	25.97	150	9.87	33.66	6.12	1.09	25.95	210	0.40
207	8.98a)	33.84	5.53a)	1.32a)	26.23	200	9.17	33.82	5.52	1.26	26.19	188	0.50
310	7.78	34.00a)	4.60b)	1.79	26.54	250	8.60	33.93	5.07	1.49	26.36	172	0.58
						300	7.98	34.00	4.61	1.72	26.51	158	0.67
195	9.34a)	33.79	5.49a)	1.20a)	26.15	400	6.28	33.96	3.57	2.18	26.72	139	0.82
292	8.16	34.01a)	4.60b)	1.65	26.49	500	5.04	33.97	2.65	2.56	26.88	124	0.95
494	5.08	33.96	2.71	2.54	26.86	600	4.47	34.07	1.80	2.85	27.02	111	1.06
745	3.84	34.20	0.97	3.14	27.19	700	4.01	34.16	1.18	3.06	27.14	100	1.17
1003	3.27	34.36	0.69	3.30	27.37	800	3.71	34.24	0.90	3.18	27.23	91	1.26
1530	2.46	34.52	0.96	3.24	27.57	1000	3.28	34.36	0.69	3.30	27.37	79	1.43
2066	1.96	34.62	1.98	3.06	27.69	1200	2.93	34.43	0.71	3.29	27.46	71	1.58
						1500	2.50	34.51	0.93	3.25	27.56	62	1.78
						2000	2.00	34.61	1.81	3.09	27.68	51	2.06

a) Smooth curve drawn between these two points.

b) Smooth curve drawn between these two points.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

108-32

BROWN BEAR; June 27, 1955; missing, 1222 GCT; 40°33'N, 139°05'W; sounding, 2360 fm; wind, 250°, force 4; weather, moderate intermittent drizzle; sea, smooth.

0	14.29	33.22	6.12	0.42	24.77	0	14.29	33.22	6.12	0.42	24.77	318	0.00
11	14.30	33.22	6.16	0.46	24.77	10	14.30	33.22	6.16	0.46	24.77	319	0.03
21	14.26	33.22	6.18	0.43	24.77	20	14.28	33.22	6.18	0.43	24.77	319	0.06
32	13.90	33.21	6.24	0.45	24.85	30	13.98	33.20	6.23	0.45	24.82	314	0.10
53	12.82	33.61	6.46	0.36	25.38	50	12.95	33.57	6.45	0.36	25.32	268	0.15
80	11.92	33.62	6.16	0.45	25.56	75	12.10	33.63	6.19	0.42	25.53	248	0.22
105	10.93	33.49a)	6.18	0.64	25.74	100	11.10	33.51	6.19	0.60	25.62	240	0.28
158	9.91	33.63	5.66	0.98	25.91	150	10.07	33.60	5.72	0.93	25.87	217	0.39
210	8.95b)	33.87	5.44b)	1.26b)	26.26	200	9.03	33.85	5.44	1.25	26.23	183	0.49
315	7.71	33.99	4.23c)	1.69	26.54	250	8.47	33.93	4.88	1.44	26.38	170	0.58
						300	7.90	33.97	4.32	1.63	26.50	159	0.66
200	8.93b)	33.87	5.38b)	1.30b)	26.27	400	6.24	33.95	3.25	2.09	26.71	139	0.81
302	7.88	33.97	4.23c)	1.63	26.50	500	4.97	33.96	2.31	2.46	26.88	124	0.94
508	4.89	33.96	2.24	2.49	26.88	600	4.41	34.07	1.47	2.72	27.03	110	1.06
767	3.72	34.23	0.54	3.00	27.22	700	3.96	34.17	0.84	2.91	27.15	98	1.16
1031	3.15	34.35	0.30	3.06	27.37	800	3.64	34.25	0.49	3.01	27.25	90	1.26
1559	2.34	34.50	0.68	2.95	27.57	1000	3.21	34.34	0.31	3.06	27.36	79	1.43
2088	1.94	34.60	1.65	2.92	27.68	1200	2.85	34.40	0.36	3.02	27.44	72	1.58
						1500	2.41	34.49	0.62	2.96	27.55	62	1.78
						2000	1.98	34.59	1.44	2.92	27.67	52	2.07

108-33

BROWN BEAR; June 28, 1955; missing, 0242 GCT; 41°42'N, 137°23'W; sounding, 2145 fm; wind, 345°, force 4; weather, cloudy; sea, slight.

0	13.83	33.09	6.15	0.45	24.77	0	13.83	33.09	6.15	0.45	24.77	319	0.00
11	13.83	33.07	6.15	0.46	24.76	10	13.83	33.07	6.15	0.46	24.75	320	0.03
21	13.82	33.08	6.15	0.50	24.77	20	13.83	33.08	6.15	0.50	24.76	320	0.06
32	13.65	33.08	6.22	0.50	24.81	30	13.77	33.08	6.19	0.49	24.77	319	0.10
53	10.09	33.03	6.61	0.69	25.42	50	10.41	33.03	6.59	0.67	25.37	263	0.15
80	9.98	33.04	6.43	0.77	25.44	75	10.01	33.03	6.45	0.73	25.43	257	0.22
106	9.72	33.09	6.33	1.19	25.53	100	9.80	33.08	6.36	1.12	25.51	250	0.28
159	8.50	33.28	5.81	1.25	25.86	150	8.65	33.23	5.94	1.21	25.81	222	0.40
210	8.04b)	33.73	4.86	1.65	26.30	200	8.12	33.65	5.04	1.56	26.22	184	0.50
313	6.71	33.93	2.96b)	2.30b)	26.63	250	7.46	33.80	4.01	1.89	26.43	164	0.59
						300	6.85	33.91	3.11	2.17	26.60	149	0.67
206	8.03b)	33.66	4.92	1.58	26.25	400	6.04	33.99	2.02	2.53	26.77	134	0.81
303	6.81	33.92	3.02b)	2.12b)	26.62	500	5.37	34.07	1.21	2.81	26.92	120	0.94
505	5.34	34.07	1.18	2.82	26.93	600	4.86	34.13	0.82	2.97	27.02	111	1.05
772	4.15	34.23	0.39	3.14	27.17	700	4.42	34.19	0.54	3.09	27.12	102	1.16
1037	3.46	34.40	0.30	3.14	27.38	800	4.07	34.25	0.38	3.14	27.20	94	1.26
1572	2.39	34.49	0.52	3.06	27.55	1000	3.55	34.38	0.30	3.14	27.36	80	1.43
2111	1.91	34.61	1.69	3.04	27.69	1200	3.07	34.42	0.27	3.11	27.44	73	1.58
						1500	2.50	34.48	0.43	3.07	27.54	64	1.79
						2000	1.96	34.58	1.37	3.04	27.66	52	2.08

a) This value deviates from smooth curve; not used.

b) Smooth curve drawn between these two points.

c) Smooth curve drawn between these two points.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; June 28, 1955; missing, 1733 GCT; 42°51'N, 135°40'W; sounding, 2160 fm; wind, 305°, force 4; weather, cloudy; sea, slight.

108-34

0	13.17	33.03	6.23	0.63	24.85	0	13.17	33.03	6.23	0.63	24.86	310	0.00
11	13.16	33.04	6.23	0.57	24.86	10	13.16	33.04	6.23	0.57	24.87	310	0.03
21	13.16	33.05	6.22	0.57	24.87	20	13.16	33.05	6.22	0.57	24.87	309	0.06
32	13.15	33.09	6.20	0.56	24.89	30	13.24	33.08	6.19	0.55	24.88	309	0.09
52	10.04	33.09	6.70	0.80	25.48	50	10.25	33.09	6.68	0.78	25.44	256	0.15
79	9.47	33.10	6.44	0.93	25.57	75	9.55	33.10	6.46	0.91	25.57	244	0.21
105	9.03	33.04	6.44	1.02	25.61	100	9.11	33.04	6.46	1.00	25.59	242	0.27
158	8.40	33.52	5.63	1.38	26.07	150	8.49	33.46	5.75	1.34	26.01	203	0.38
211	7.89a)	33.81	4.92	1.65	26.37	200	7.96	33.79	5.06	1.60	26.35	172	0.48
316	5.83	33.87a)	3.20	2.35	26.71	250	6.99	33.84	4.24	1.93	26.53	155	0.56
						300	6.17	33.88	3.52	2.20	26.67	142	0.63
195	7.95a)	33.79	5.11	1.58	26.34	400	5.23	33.94	2.34	2.57	26.83	127	0.77
294	6.36	33.89a)	3.70	2.11	26.64	500	4.55	34.02	1.47	2.82	26.97	114	0.89
494	4.57	34.01	1.50	2.82	26.96	600	4.21	34.12	0.95	2.90	27.09	104	1.00
746	3.80	34.24	0.52	3.02	27.22	700	3.92	34.21	0.60	2.98	27.19	95	1.10
1004	3.34	34.36	0.68	3.22	27.37	800	3.70	34.27	0.55	3.08	27.26	89	1.19
1527	2.40	34.52	0.92	3.12	27.58	1000	3.35	34.36	0.68	3.22	27.36	80	1.36
2055	1.91	34.59	1.92	3.02	27.67	1200	2.93	34.43	0.68	3.18	27.46	71	1.51
						1500	2.44	34.51	0.88	3.13	27.57	61	1.71
						2000	1.94	34.59	1.78	3.03	27.67	52	1.99

BROWN BEAR; June 28, 1955; missing, 1022 GCT; 44°04'N, 134°01'W; sounding, 2070 fm; wind, 280°, force 4; weather, slight drizzle; sea, moderate.

108-35

0	11.89	32.84	6.55	0.74	24.95	0	11.89	32.84	6.55	0.75	24.95	301	0.00
12	11.91	32.82	6.47	0.76	24.94	10	11.91	32.82	6.47	0.76	24.94	303	0.03
24	11.91	32.82	6.53	0.76	24.94	20	12.02	32.82	6.51	0.75	24.92	305	0.06
37	10.78	32.84	6.61	0.82	25.15	30	11.42	32.83	6.56	0.78	25.03	294	0.09
60	8.18	32.84	6.87	1.09	25.57	50	9.03	32.83	6.80	1.00	25.44	256	0.14
90	8.24	32.92	6.72	1.12	25.64	75	8.26	32.89	6.80	1.09	25.60	241	0.21
119	7.93	32.93	6.55	1.23	25.68	100	8.12	32.90	6.69	1.16	25.63	238	0.27
179	7.65	33.62	5.66	1.50	26.28	150	7.78	33.34	6.15	1.37	26.02	202	0.38
239	7.39	33.91	4.36	1.78	26.53	200	7.62	33.75	5.15	1.60	26.37	170	0.47
359	5.43	33.91a)	2.76	2.38	26.79	250	7.15	33.90	4.18	1.85	26.55	153	0.55
						300	6.27	33.90	3.48	2.10	26.67	142	0.62
231	7.50	33.91	4.45	1.76	26.51	400	5.17	33.94	2.34	2.47	26.84	126	0.76
346	5.60	33.88a)	2.93	2.25	26.74	500	4.53	34.03	1.47	2.73	26.98	113	0.88
580	4.12	34.09	0.95	2.88	27.07	600	4.06	34.10	0.90	2.89	27.09	104	0.99
886	3.34	34.27	0.40	3.02	27.30	700	3.77	34.16	0.67	2.94	27.16	97	1.09
1192	2.97	34.45	0.37	3.08	27.47	800	3.52	34.22	0.50	2.99	27.24	90	1.18
1803	2.07	34.56	1.21	2.87	27.63	1000	3.21	34.35	0.36	3.06	27.37	79	1.35
2403	1.75	34.62	1.92	2.66	27.71	1200	2.95	34.45	0.38	3.08	27.47	70	1.50
						1500	2.44	34.51	0.81	2.97	27.57	61	1.70
						2000	1.90	34.58	1.46	2.80	27.66	52	1.98

a) Smooth curve drawn between these two points.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

108-36

BROWN BEAR; June 30, 1955; missing, 0414 GCT; 45°29'N, 131°48'W; sounding, 1800 fm; wind, 290°, force 5; weather, overcast; sea, rough.

0	12.10	32.71	4.66	0.75	24.82	0	12.10	32.71	4.66	0.75	24.81	314	0.00
11	12.12	32.72	4.94	0.77	24.83	10	12.12	32.72	4.86	0.77	24.82	314	0.03
21	12.12	32.70	6.27	0.78	24.81	20	12.12	32.70	6.20	0.78	24.80	316	0.06
32	12.10	32.73	6.16	0.74	24.83	30	12.16	32.73	6.16	0.74	24.82	315	0.09
53	9.86	32.76	6.72	0.99	25.24	50	10.13	32.75	6.69	0.96	25.20	279	0.15
80	8.08	32.83	6.38	1.26	25.58	75	8.32	32.82	6.44	1.23	25.54	247	0.22
105	7.49	32.83	6.12	1.27	25.66	100	7.58	32.81	6.19	1.26	25.64	238	0.28
158	7.22	33.49	4.30	1.76	26.23	150	7.25	33.41	4.58	1.69	26.15	189	0.39
210	7.03	33.85	2.88	2.14	26.54	200	7.11	33.81	2.81	2.08	26.49	158	0.47
314	5.88	33.95a)	1.87	2.52a)	26.76	250	6.53	33.89	2.35	2.27	26.63	145	0.55
						300	6.00	33.95	1.96	2.43	26.75	135	0.62
195	7.18	33.80	2.64	2.04	26.47	400	5.20	34.03	1.25	2.62	26.91	120	0.75
293	6.03	33.95a)	1.98	2.36a)	26.74	500	4.62	34.11	0.74	2.77	27.03	108	0.86
493	4.64	34.10	0.76	2.76	27.03	600	4.38	34.19	0.46	2.88	27.12	101	0.97
744	4.02	34.28	0.21	3.00	27.23	700	4.13	34.25	0.27	2.97	27.20	94	1.06
1002	3.35	34.39	0.22	3.09	27.38	800	3.86	34.31	0.21	3.03	27.27	88	1.15
1523	2.39	34.32b)	0.29	3.00	27.42	1000	3.35	34.39	0.22	3.09	27.39	77	1.32
2052	1.89	34.57	1.30	2.92	27.66	1200	2.93	34.33	0.15	3.05	27.38	78	1.48
						1500	2.42	34.32	0.27	3.00	27.42	75	1.70
						2000	1.92	34.53	1.15	2.93	27.62	56	2.03

108-37

BROWN BEAR; June 30, 1955; missing, 2313 GCT; 47°00'N, 129°21'W; sounding, 1375 fm; wind, 300°, force 4; weather, cloudy; sea, rough.

0	11.93	32.29	6.65	0.59	24.53	0	11.93	32.29	6.65	0.59	24.52	342	0.00
11	11.95	32.30	6.66	0.57	24.52	10	12.02	32.29	6.65	0.56	24.50	344	0.03
21	10.45	32.48	6.91	0.77	24.94	20	10.56	32.47	6.90	0.76	24.91	306	0.07
31	9.82	32.55	6.84	0.84	25.10	30	9.89	32.54	6.84	0.84	25.07	290	0.10
51	8.09	32.57	6.93	1.05	25.38	50	8.15	32.57	6.93	1.04	25.37	262	0.15
75	7.30	32.66	6.78	1.19	25.56	75	7.30	32.66	6.78	1.19	25.56	244	0.22
99	6.94	32.93	5.88	1.57	25.82	100	6.95	32.95	5.82	1.58	25.83	219	0.27
147	7.04	33.66	3.95	1.98	26.40	150	7.01	33.68	3.89	1.99	26.40	166	0.37
198	6.59	33.87	3.11a)	2.20	26.61	200	6.55	33.87	3.02	2.21	26.61	146	0.45
						250	6.00	33.91	2.48	2.37	26.71	137	0.52
190	6.65	33.86	3.09a)	2.18	26.60	300	5.54	33.94	2.14	2.49	26.79	130	0.58
287	5.64	33.94	2.15	2.47	26.78	400	4.89	33.97	1.95	2.64	26.89	121	0.71
483	4.50	34.02	1.71	2.76	26.98	500	4.48	34.04	1.60	2.80	26.99	112	0.83
730	4.09	34.25	0.55	3.14	27.20	600	4.34	34.14	1.02	2.99	27.09	104	0.93
985	3.35	34.36	0.53	3.14	27.36	700	4.16	34.23	0.63	3.11	27.18	96	1.03
1506	2.46	34.50	1.11	2.99	27.55	800	3.87	34.28	0.53	3.14	27.25	90	1.13
2026	1.86	34.58	1.41	2.99	27.66	1000	3.32	34.36	0.55	3.13	27.37	79	1.30
						1200	2.95	34.42	0.80	3.06	27.45	72	1.45
						1500	2.47	34.50	1.11	2.99	27.55	62	1.65
						2000	1.88	34.58	1.40	2.99	27.67	52	1.93

a) Smooth curve drawn between these two points.

b) This value deviates from smooth curve; not used.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

BB-108

BROWN BEAR; July 1, 1955; missing, 1830 GCT; 48°36'N, 126°53'W; sounding, 1090 fm; wind, 295°, force 4; weather, partly cloudy; sea, moderate.

108-38

0	11.68	32.24	6.70	0.64	24.52	0	11.68	32.24	6.70	0.64	24.53	342	0.00
11	11.64	32.25	6.70	0.62	24.55	10	11.66	32.25	6.70	0.61	24.54	341	0.03
21	11.30	32.21	6.80	0.82	24.58	20	11.39	32.21	6.81	0.80	24.56	339	0.07
32	9.49	32.26	6.47	0.96	24.92	30	9.75	32.25	6.52	0.94	24.87	310	0.10
53	8.58	32.39	6.43	1.19	25.16	50	8.72	32.36	6.45	1.16	25.12	286	0.16
80	7.13	32.72	6.09	1.53	25.64	75	7.27	32.63	6.28	1.45	25.54	246	0.23
106	7.30	33.38	4.17	2.03	26.13	100	7.28	33.25	4.52	1.94	26.03	201	0.28
159	7.08	33.81	3.36	2.30	26.49	150	7.14	33.76	3.52	2.26	26.44	162	0.37
212	6.53	33.91a)	2.34	2.44a)	26.65	200	6.63	33.91	2.49	2.44	26.63	144	0.45
317	5.60	33.96b)	1.83	2.68b)	26.80	250	6.15	33.93	2.16	2.53	26.71	137	0.52
						300	5.73	33.95	1.90	2.61	26.78	131	0.59
202	6.60	33.92a)	2.40	2.48a)	26.64	400	5.23	34.03	1.25	2.86	26.90	120	0.71
305	5.70	33.94b)	1.87	2.58b)	26.77	500	4.81	34.11	0.75	3.06	27.01	111	0.83
516	4.75	34.12	0.68	3.09	27.02	600	4.50	34.18	0.50	3.17	27.10	103	0.94
782	3.98	34.29	0.28	3.26	27.24	700	4.21	34.25	0.35	3.24	27.19	95	1.04
1045	3.31	34.38	0.36	3.16	27.38	800	3.93	34.30	0.28	3.25	27.26	89	1.13
1577	2.32	34.52	0.76	3.16	27.59	1000	3.42	34.37	0.34	3.17	27.37	80	1.30
						1200	2.97	34.43	0.44	3.13	27.46	71	1.45
						1500	2.43	34.50	0.68	3.14	27.56	62	1.65

BROWN BEAR; July 2, 1955; 0345, missing GCT; 48°39'N, 126°22'W; sounding, 324 fm; wind, 300°, force 3; weather, partly cloudy; sea, slight.

108-39

0	11.76	32.11	3.37	0.28	24.41	0	11.76	32.11	3.37	0.29	24.41	352	0.00
10	11.78	32.10	3.07	0.72	24.40	10	11.78	32.10	3.07	0.72	24.40	354	0.04
20	10.59	32.15	3.15	0.91	24.63	20	10.59	32.15	3.15	0.91	24.65	330	0.07
40	7.54	32.57	2.26	1.75	25.46	30	8.74	32.35	2.64	1.37	25.11	287	0.10
						50	7.24	32.79	2.11	2.05	25.67	234	0.15
59	7.04	33.02	1.92	2.25	25.89	75	6.90	33.45	1.58	2.41	26.23	180	0.20
72	6.86	33.39	1.56	2.42	26.19	100	6.98	33.79	1.52	2.38	26.49	156	0.25
94	7.05	33.77	1.64	2.37	26.48	150	6.47	33.91	1.01	2.51	26.65	142	0.32
143	6.54	33.90	1.01	2.48	26.64	200	6.02	33.97	1.01	2.70	26.76	132	0.39
190	6.10	33.96	1.01	2.67	26.74	250	5.67	34.00	0.95	2.83	26.83	126	0.45
294	5.46	34.00	0.87	2.90	26.84								

BROWN BEAR; July 2, 1955; 0920 GCT; 48°46'N, 126°05'W; sounding, 50 fm; wind, 280°, force 4; weather, clear; sea, slight.

108-40

0	11.78	31.89	8.96	0.46	24.23	0	11.78	31.89	8.96	0.46	24.24	369	0.00
10	11.20	32.20	8.51	0.41	24.58	10	11.20	32.20	8.51	0.41	24.58	336	0.04
20	7.94	32.68	3.74	2.23	25.49	20	7.94	32.68	3.74	2.23	25.48	251	0.06
30	7.36	33.03	3.52	2.09	25.83	30	7.36	33.03	3.52	2.09	25.84	217	0.09
50	6.96	33.33	1.20	2.91	26.13	50	6.96	33.33	1.20	2.91	26.13	190	0.13
75	6.70	33.51	1.80	2.96	26.31	75	6.70	33.51	1.80	2.96	26.31	173	0.17

a) Smooth curve drawn between these two points.

b) Smooth curve drawn between these two points.

UW

BB-108

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn m

108-41

BROWN BEAR; July 2, 1955; 1130 GCT; 48°50'N, 125°57'W; sounding, 34 fm; wind, 290°, force 4; weather, partly cloudy; sea, slight.

0	11.25	31.28	9.46	0.62	23.87	0	11.25	31.28	9.46	0.63	23.86	405	0.00
10	9.75	31.74	6.69	1.46	24.47	10	9.75	31.74	6.69	1.46	24.47	347	0.04
20	8.20	32.42	4.37	2.19	25.25	20	8.20	32.42	4.37	2.19	25.24	274	0.07
30	7.84	32.66	3.47	2.37	25.49	30	7.84	32.66	3.47	2.37	25.48	251	0.10
50	7.40	33.05	3.12	2.59	25.85	50	7.40	33.05	3.12	2.59	25.85	216	0.14

108-42

BROWN BEAR; July 2, 1955; 1452 GCT; 48°42'N, 125°24'W; sounding, 60 fm; wind, 310°, force 3; weather, partly cloudy; sea, calm.

0	11.08	31.02	8.42	0.50	23.69	0	11.08	31.02	8.42	0.51	23.69	422	0.00
10	8.06	32.23	3.92	2.28	25.11	10	8.06	32.23	3.92	2.28	25.11	286	0.04
20	7.97	32.29	3.74	2.33	25.17	20	7.97	32.29	3.74	2.33	25.17	280	0.06
30	7.90	32.34	3.66	2.31	25.22	30	7.90	32.34	3.66	2.31	25.22	276	0.09
50	7.76	32.50	3.53	2.58	25.36	50	7.76	32.50	3.53	2.58	25.37	262	0.14
75	7.55	32.75	3.25	2.46	25.59	75	7.55	32.75	3.25	2.46	25.60	241	0.21
100	7.07	33.27	2.80	2.58	26.07	100	7.07	33.27	2.80	2.58	26.07	196	0.26

108-43

BROWN BEAR; July 2, 1955; 1850 GCT; 48°32'N, 124°45'W; sounding, 95 fm; wind, 270°, force 1; weather, partly cloudy; sea, smooth.

0	10.15	31.07	5.92	2.19	23.88	0	10.15	31.07	5.92	2.19	23.89	403	0.00
10	8.61	31.61	3.28	2.36	24.55	10	8.61	31.61	3.28	2.36	24.55	340	0.04
20	8.35	31.82	2.42	1.95	24.75	20	8.35	31.82	2.42	1.95	24.75	321	0.07
30	8.18	32.14	3.04	2.38	25.02	30	8.18	32.14	3.04	2.38	25.03	295	0.10
50	8.09	32.24	2.82	2.50	25.02	50	8.09	32.24	2.82	2.50	25.12	286	0.16
75	7.24	33.02	1.80	2.64	25.85	75	7.24	33.02	1.80	2.64	25.85	217	0.22
100	6.96	33.50	1.87	2.55	26.27	100	6.96	33.50	1.87	2.55	26.27	178	0.27
150	6.26	33.84	1.14	2.83	26.62	150	6.26	33.84	1.14	2.83	26.63	144	0.35

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

JNC-23

JOHN N. COBB; July 6, 1955; 2359 GCT; ^{a)} 56°46'N, 137°04'W; wind, 070°, force 3; weather, overcast; sea, slight.

8

0	11.58	32.01	6.29	0.48	24.37	0	11.58	32.01	6.29	0.48	24.37	357	0.00
10	11.48	31.97	6.83	0.50	24.36	10	11.48	31.97	6.83	0.50	24.36	358	0.04
20	9.24	32.04	7.29	0.46	24.79	20	9.24	32.04	7.29	0.46	24.79	317	0.07
50	6.98	32.30	6.19	1.17	25.32	30	8.30	32.14	6.85	0.75	25.01	296	0.10
100	6.87	32.51	5.71	1.33	25.50	50	6.98	32.30	6.19	1.17	25.32	267	0.16
250	5.41	33.80	2.36	2.00	26.70	75	6.95	32.39	5.99	1.25	25.39	260	0.22
						100	6.87	32.51	5.71	1.33	25.50	250	0.29
439	4.08	34.12	0.67	2.63	27.10	150	6.34	33.04	4.40	1.57	25.99	205	0.40
839	3.16	34.39	0.46	2.52	27.40	200	5.86	33.47	3.28	1.79	26.38	168	0.49
						250	5.41	33.80	2.36	2.00	26.70	138	0.57
						300	5.00	33.90	1.81	2.21	26.83	126	0.64
						400	4.31	34.06	0.94	2.54	27.03	108	0.75
						500	3.77	34.20	0.35	2.74	27.20	92	0.85
						600	3.40	34.30	0.03	2.82	27.31	82	0.94
						700	3.19	34.36	0.01	2.78	27.38	76	1.02
						800	3.14	34.39	0.28	2.62	27.41	74	1.09

JOHN N. COBB; July 8, 1955; 0050 GCT; 57°40'N, 137°36'W; wind, calm; weather, overcast; sea, calm.

9

0	12.44	32.40	7.19	0.61	24.51	0	12.44	32.40	7.19	0.61	24.51	343	0.00
10	10.27	32.39	7.50	0.62	24.89	10	10.27	32.39	7.50	0.62	24.89	307	0.03
19	8.39	32.41	7.17	0.84	25.21	20	8.33	32.41	7.15	0.85	25.22	276	0.06
49	6.88	32.48	6.54	1.10	25.47	30	7.76	32.42	6.94	0.94	25.31	268	0.09
97	5.79	32.94	5.38	1.52	25.97	50	6.85	32.49	6.52	1.11	25.49	251	0.14
243	4.79	33.90	1.56	2.10	26.85	75	6.24	32.74	5.91	1.34	25.76	225	0.20
						100	5.77	32.97	5.28	1.53	26.00	203	0.25
486	3.97	34.17	0.52	2.44	27.15	150	5.38	33.36	3.71	1.76	26.35	170	0.35
971	3.10	34.37	0.40	2.33	27.40	200	5.04	33.68	2.43	1.96	26.65	142	0.42
						250	4.76	33.91	1.51	2.11	26.86	122	0.49
						300	4.57	33.97	1.25	2.20	26.93	116	0.55
						400	4.23	34.09	0.81	2.35	27.06	105	0.66
						500	3.93	34.18	0.47	2.45	27.16	96	0.76
						600	3.67	34.26	0.26	2.51	27.25	88	0.85
						700	3.46	34.31	0.15	2.52	27.31	82	0.94
						800	3.29	34.35	0.15	2.49	27.36	78	1.02

JOHN N. COBB; July 12, 1955; 0717 GCT; 57°44'N, 139°08'W; wind, 120°, force 1; weather, overcast; sea, smooth.

10

0	10.36	32.37	7.00	0.76	24.87	0	10.36	32.37	7.00	0.76	24.86	310	0.00
10	10.34	32.37	7.02	0.74	24.87	10	10.34	32.37	7.02	0.74	24.87	310	0.03
20	8.10	32.46	6.81	-	25.29	20	8.10	32.46	6.81	-	25.29	270	0.06
50	5.56	32.62	6.84	1.15	25.75	30	7.03	32.48	6.99	0.93	25.45	254	0.09
96	5.52	33.42	3.99	1.76	26.39	50	5.56	32.62	6.84	1.15	25.75	226	0.13
250u	4.73	33.89	1.66	2.21	26.85	75	5.55	33.09	5.16	1.51	26.12	191	0.19
						100	5.50	33.44	3.91	1.77	26.40	164	0.23
496	4.07	34.16	0.56	2.43	27.15	150	5.21	33.61	3.02	1.95	26.57	149	0.31
994	3.08	34.40	0.45	2.58	27.42	200	4.95	33.76	2.27	2.09	26.72	135	0.38
						250	4.73	33.89	1.66	2.21	26.85	124	0.44
						300	4.59	33.95	1.38	2.26	26.91	118	0.50
						400	4.31	34.07	0.91	2.36	27.04	107	0.62
						500	4.06	34.16	0.55	2.43	27.13	98	0.72
						600	3.82	34.24	0.30	2.49	27.22	91	0.81
						700	3.61	34.31	0.17	2.54	27.30	84	0.90
						800	3.41	34.36	0.16	2.57	27.36	79	0.98

a) The times reported are those of messenger release of bottom cast; the times of the upper (second) casts were not recorded on the data sheets.

UW

JNC-23

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn m

11	JOHN N. COBB; July 13, 1955; 0334 GCT; 57°38'N, 141°20'W; wind, calm; weather, overcast; sea, smooth.													
	0	10.50	32.37	6.90	0.55	24.84	0	10.50	32.37	6.90	0.55	24.84	312	0.00
	10	10.08	32.39	6.97	0.53	24.92	10	10.08	32.39	6.97	0.53	24.92	304	0.03
	20	9.31	32.41	7.06	0.67	25.07	20	9.31	32.41	7.06	0.67	25.07	291	0.06
	50	5.94	32.66	6.66	0.98	25.73	30	7.92	32.47	7.04	0.77	25.32	266	0.09
	100	5.64	33.51	3.52	1.66	26.45	50	5.94	32.66	6.66	0.98	25.74	227	0.14
	250	4.55	33.90	1.43	2.12	26.87	75	5.79	33.13	4.94	1.35	26.12	191	0.19
							100	5.64	33.51	3.52	1.66	26.44	161	0.23
	486	3.90	34.13	0.53	2.17	27.13	150	5.22	33.66	2.69	1.85	26.61	145	0.31
	976	2.97	34.40	0.40	2.29	27.43	200	4.85	33.79	1.99	2.00	26.76	132	0.33
							250	4.55	33.90	1.43	2.12	26.88	121	0.44
							300	4.40	33.95	1.20	2.13	26.93	116	0.50
							400	4.12	34.05	0.80	2.15	27.04	106	0.61
							500	3.87	34.14	0.49	2.17	27.14	98	0.71
							600	3.63	34.22	0.28	2.20	27.23	90	0.81
							700	3.42	34.28	0.18	2.22	27.29	84	0.90
							800	3.24	34.34	0.18	2.24	27.36	78	0.98
12	JOHN N. COBB; July 14, 1955; 0318 GCT; 57°26'N, 143°29'W; wind, 300°, force 3; weather, cloudy; sea, slight.													
	0	10.20	32.34	6.57	0.68	24.87	0	10.20	32.34	6.57	0.68	24.87	309	0.00
	10	9.36	32.36	6.65	0.68	25.02	10	9.36	32.36	6.65	0.68	25.02	295	0.03
	19	7.78	32.45	6.72	0.65	25.33	20	7.66	32.46	6.71	0.67	25.35	264	0.06
	48	5.20	32.83	6.05	1.15	25.95	30	6.57	32.59	6.53	0.86	25.60	240	0.08
	96	5.26	33.48	3.64	1.62	26.46	50	5.21	32.86	5.94	1.17	25.98	204	0.13
	243	4.41	33.93	1.13	2.31	26.91	75	5.25	33.23	4.59	1.43	26.27	177	0.18
							100	5.23	33.50	3.55	1.65	26.48	157	0.22
	482	3.82	34.17	0.43	2.39	27.17	150	4.90	33.67	2.53	1.93	26.66	141	0.29
	970	2.86	34.41	0.49	2.37	27.45	200	4.62	33.82	1.70	2.16	26.81	127	0.36
							250	4.39	33.94	1.11	2.31	26.93	116	0.42
							300	4.26	33.99	0.92	2.33	26.98	112	0.48
							400	4.01	34.10	0.62	2.37	27.09	101	0.58
							500	3.78	34.18	0.39	2.39	27.18	94	0.68
							600	3.56	34.26	0.26	2.41	27.26	86	0.77
							700	3.35	34.32	0.20	2.41	27.33	80	0.85
							800	3.16	34.36	0.24	2.40	27.38	76	0.93
13	JOHN N. COBB; July 15, 1955; 0431 GCT; 57°16'N, 145°26'W; wind, direction missing, force 4; weather, intermittent rain; sea, rough.													
	0	9.43	32.30	6.61	0.65	24.96	0	9.43	32.30	6.61	0.65	24.96	300	0.00
	10	9.44	32.31	6.68	0.57	24.97	10	9.44	32.31	6.68	0.57	24.97	300	0.03
	19	9.48	32.31	6.63	0.49	24.96	20	9.32	32.32	6.63	0.52	24.99	298	0.06
	48	5.84	32.55	6.32	1.18	25.67	30	7.82	32.39	6.56	0.80	25.27	271	0.09
	100	5.18	33.20	4.57	1.41	26.24	50	5.81	32.58	6.24	1.19	25.69	232	0.14
	250	4.74	33.89	1.58	2.15	26.85	75	5.46	32.91	5.36	1.30	25.99	203	0.19
							100	5.18	33.20	4.57	1.41	26.25	179	0.24
	273	4.37a)	33.96	1.12	2.26	26.94	150	5.03	33.46	3.45	1.69	26.47	158	0.32
	813	3.20	34.33	0.49	2.24	27.35	200	4.89	33.69	2.45	1.94	26.67	140	0.40
							250	4.74	33.89	1.58	2.15	26.85	124	0.46
							300	4.60	34.07	1.06	2.33	27.01	109	0.52
							400	4.31	34.34	0.85	2.59	27.25	87	0.62
							500	4.03	34.50	0.72	2.71	27.41	73	0.70
							600	3.76	34.56	0.64	2.71	27.48	66	0.77
							700	3.49	34.51	0.56	2.56	27.47	68	0.84
							800	3.23	34.36	0.50	2.29	27.38	77	0.91

a) This value deviates from smooth curve; not used.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

JNC-23

JOHN N. COBB; July 16, 1955; 0331 GCT; 57°10'N, 147°30'W; wind, 250°, force 5; weather, fog; sea, moderate.

14

0	9.31	32.26	6.74	0.73	24.91	0	9.31	32.26	6.74	0.73	24.95	302	0.00
10	9.28	32.26	6.66	0.73	24.95	10	9.28	32.26	6.66	0.73	24.95	301	0.03
20	8.39	32.73	6.68	0.97	25.45	20	8.39	32.73	6.68	0.97	25.46	254	0.06
49	5.65	32.88	6.63	1.32	25.95	30	7.27	32.78	6.72	1.11	25.66	235	0.08
98	4.46	33.21	5.42	1.53	26.33	50	5.62	32.89	6.61	1.32	25.96	206	0.13
243	4.01	33.91	1.25	2.37	26.94	75	4.95	33.06	6.00	1.43	26.17	186	0.18
						100	4.45	33.22	5.34	1.55	26.35	169	0.22
481	3.80	34.18	0.40	2.48	27.17	150	4.27	33.51	3.61	1.90	26.60	146	0.30
960	2.87	34.42	0.44	2.61	27.46	200	4.12	33.74	2.21	2.18	26.79	128	0.37
						250	4.01	33.92	1.22	2.37	26.95	114	0.43
						300	3.97	33.98	1.00	2.40	27.00	109	0.48
						400	3.89	34.10	0.63	2.45	27.10	100	0.59
						500	3.78	34.20	0.36	2.49	27.19	92	0.68
						600	3.63	34.28	0.19	2.52	27.27	86	0.77
						700	3.46	34.34	0.13	2.55	27.34	80	0.86
						800	3.26	34.38	0.17	2.58	27.39	76	0.93

JOHN N. COBB; July 17, 1955; 0023 GCT; 56°59'N, 149°39'W; wind, missing; weather, missing; sea, slight.

15

0	9.52	32.49	6.68	0.72	25.10	0	9.52	32.49	6.68	0.72	25.09	288	0.00
10	9.25	32.51	6.66	0.79	25.15	10	9.25	32.51	6.66	0.79	25.15	283	0.03
19	8.78	32.57	6.78	0.79	25.27	20	8.60	32.57	6.73	0.82	25.30	268	0.06
46	5.00	32.92	5.78	1.51	26.05	30	6.95	32.68	6.29	1.14	25.62	238	0.08
92	4.03	33.22	5.49	1.70	26.39	50	4.90	32.94	5.78	1.52	26.08	194	0.12
216	3.97	33.90	1.19	2.52	26.93	75	4.33	33.12	5.68	1.62	26.28	176	0.17
						100	4.03	33.26	5.13	1.77	26.42	163	0.21
461	3.81	34.19	0.52	2.51	27.18	150	4.00	33.59	3.15	2.15	26.69	138	0.29
935	2.87	34.43	0.45	2.48	27.46	200	3.98	33.85	1.59	2.45	26.90	118	0.35
						250	3.96	33.96	1.06	2.52	26.98	111	0.41
						300	3.94	34.03	0.91	2.52	27.05	104	0.46
						400	3.87	34.13	0.64	2.51	27.13	98	0.56
						500	3.76	34.21	0.45	2.51	27.21	91	0.66
						600	3.62	34.27	0.32	2.50	27.27	86	0.75
						700	3.44	34.33	0.28	2.50	27.33	81	0.83
						800	3.22	34.37	0.30	2.49	27.39	75	0.91

JOHN N. COBB; July 18, 1955; 0316 GCT; 56°11'N, 151°06'W; wind, 270°, force 3; weather, overcast; sea, slight.

16

0	9.39	32.10	6.70	-	24.81	0	9.39	32.10	6.70		24.81	315	0.00
10	9.39	32.07	6.82	-	24.79	10	9.39	32.07	6.82		24.79	317	0.03
19	8.88	32.14	6.74	-	24.92	20	8.75	32.15	6.72		24.95	302	0.06
48	5.96	32.48	6.06	1.44	25.59	30	7.56	32.27	6.50		25.22	276	0.09
97	5.10	33.12	4.67	1.67	26.20	50	5.92	32.51	6.00	1.45	25.62	238	0.14
244	4.73	33.91	1.74	2.13	26.87	75	5.44	32.86	5.26	1.57	25.95	207	0.20
						100	5.09	33.14	4.59	1.68	26.21	182	0.25
468	3.93	34.13	0.62	2.69	27.12	150	4.98	33.46	3.42	1.84	26.48	158	0.33
962	2.93	34.40	0.50	2.60	27.44	200	4.85	33.73	2.43	2.00	26.71	136	0.41
						250	4.71	33.92	1.70	2.15	26.87	121	0.47
						300	4.51	33.97	1.39	2.31	26.94	116	0.53
						400	4.15	34.07	0.88	2.56	27.05	105	0.64
						500	3.83	34.16	0.52	2.74	27.16	96	0.74
						600	3.56	34.23	0.27	2.84	27.24	89	0.83
						700	3.33	34.29	0.16	2.87	27.31	82	0.92
						800	3.14	34.34	0.18	2.83	27.37	77	1.00

UW

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OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

17

JOHN N. COBB; July 22, 1955; 0504 GCT; 55°35'N, 152°44'W; wind, 215°, force 1; weather, clear; sea, smooth.

0	11.46	32.41	6.44	0.74	24.88	0	11.46	32.41	6.44	0.74	24.70	325	0.00
10	9.78	32.44	6.43	0.62	25.01	10	9.78	32.44	6.43	0.62	25.01	296	0.03
20	8.74	32.53	6.48	0.67	25.23	20	8.74	32.53	6.48	0.67	25.25	273	0.06
50	4.88	32.94	5.70	1.46	26.10	30	7.12	32.67	6.26	0.99	25.59	241	0.08
100	5.03	33.49	3.54	1.69	26.50	50	4.88	32.94	5.70	1.46	26.08	194	0.13
249	4.25	33.93	1.25	2.33	26.93	75	4.98	33.24	4.54	1.58	26.31	173	0.18
						100	5.03	33.49	3.54	1.69	26.50	155	0.22
498	4.06	34.17	0.54	3.05	27.14	150	4.71	33.66	2.62	1.92	26.67	140	0.29
972	2.88	34.42	0.48	2.84	27.46	200	4.45	33.81	1.85	2.14	26.82	126	0.36
						250	4.25	33.93	1.25	2.33	26.93	115	0.42
						300	4.24	33.99	1.06	2.52	26.98	111	0.47
						400	4.17	34.08	0.76	2.83	27.06	105	0.58
						500	4.06	34.17	0.54	3.05	27.14	98	0.68
						600	3.90	34.25	0.38	3.18	27.22	91	0.78
						700	3.69	34.31	0.30	3.21	27.29	85	0.86
						800	3.43	34.36	0.30	3.16	27.36	79	0.95

18

JOHN N. COBB; July 23, 1955; 0300 GCT; 54°32'N, 152°47'W; wind, 270°, force 3; weather, fog; sea, slight.

0	11.62	32.38	5.42	0.56	24.65	0	11.62	32.38	5.42	0.56	24.65	330	0.00
9	10.33	32.39	5.94	0.57	24.89	10	10.27	32.39	5.98	0.57	24.89	307	0.03
19	9.52	32.45	6.23	0.63	25.07	20	9.31	32.47	6.23	0.66	25.11	286	0.06
48	5.00	32.92	5.71	1.47	26.05	30	7.41	32.63	6.15	0.99	25.52	248	0.09
96	4.91	33.59	2.78	2.10	26.59	50	5.00	32.95	5.57	1.50	26.07	195	0.13
229	3.98	33.93	1.00	2.24	26.95	75	4.97	33.33	3.91	1.86	26.38	166	0.18
						100	4.87	33.60	2.71	2.10	26.60	145	0.22
496	3.66	34.21	0.39	2.62	27.21	150	4.47	33.74	1.94	2.15	26.76	131	0.29
971	2.78	34.42	0.57	2.46	27.46	200	4.14	33.87	1.30	2.21	26.90	118	0.35
						250	3.96	33.96	0.93	2.28	26.99	110	0.40
						300	3.91	34.02	0.78	2.37	27.04	106	0.46
						400	3.79	34.12	0.55	2.52	27.13	98	0.56
						500	3.65	34.21	0.39	2.62	27.22	90	0.66
						600	3.50	34.29	0.29	2.68	27.29	84	0.74
						700	3.33	34.35	0.27	2.68	27.36	78	0.82
						800	3.14	34.39	0.32	2.64	27.41	74	0.90

19

JOHN N. COBB; July 24, 1955; 0217 GCT; 53°25'N, 152°36'W; wind, 230°, force 3; weather, intermittent rain; sea, moderate.

0	9.72	32.66	6.71	1.08	25.20	0	9.72	32.66	6.71	1.08	25.19	278	0.00
8	9.54	32.67	6.66	0.91	25.23	10	9.49	32.68	6.63	0.91	25.25	273	0.03
17	9.12	32.70	6.54	0.94	25.32	20	8.57	32.70	6.64	0.96	25.41	258	0.06
44	5.19	32.77	6.89	1.16	25.91	30	6.94	32.71	6.87	1.04	25.65	236	0.08
90	3.74	33.28	4.55	1.68	26.46	50	4.96	32.84	6.55	1.24	25.99	203	0.12
234	3.99	34.03	0.66	2.35	27.03	75	4.13	33.13	5.25	1.53	26.31	173	0.17
						100	3.77	33.35	4.19	1.74	26.52	153	0.21
480	3.55	34.23	0.62	2.38	27.24	150	3.89	33.65	2.58	2.02	26.75	132	0.28
976	2.70	34.43	0.54	2.35	27.47	200	3.96	33.90	1.32	2.24	26.94	114	0.34
						250	3.96	34.05	0.66	2.35	27.06	103	0.40
						300	3.87	34.09	0.65	2.36	27.10	100	0.45
						400	3.69	34.17	0.63	2.37	27.18	93	0.55
						500	3.51	34.24	0.62	2.38	27.25	87	0.64
						600	3.34	34.30	0.59	2.38	27.32	81	0.72
						700	3.17	34.35	0.58	2.38	27.37	76	0.80
						800	3.00	34.39	0.56	2.37	27.42	72	0.87

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

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JOHN N. COBB; July 25, 1955; 0538 GCT; 53°38'N, 154°44'W; wind, 270°, force 3; weather, intermittent rain; sea, very rough.

45

0	10.18	32.55	6.50	1.13	25.03	0	10.18	32.55	6.50	1.13	25.03	294	0.00
10	10.16	32.65	6.59	1.21	25.11	10	10.16	32.65	6.59	1.21	25.11	286	0.03
20	9.33	32.74	6.89	1.19	25.32	20	9.33	32.74	6.89	1.19	25.32	267	0.06
50	4.52	32.88	6.99	1.28	26.07	30	7.38	32.78	7.03	1.21	25.64	236	0.08
99	3.45	33.29	5.05	1.64	26.49	50	4.52	32.88	6.99	1.28	26.07	195	0.12
249	3.96	34.05	0.58	2.50	27.05	75	3.90	33.10	5.97	1.47	26.31	173	0.17
						100	3.46	33.30	5.01	1.65	26.51	154	0.21
478	3.50	34.26	0.40	2.36	27.27	150	3.70	33.60	3.15	2.02	26.73	134	0.28
960	2.67	34.44	0.55	2.51	27.48	200	3.86	33.86	1.67	2.30	26.92	116	0.35
						250	3.96	34.05	0.58	2.50	27.06	103	0.40
						300	3.85	34.10	0.53	2.46	27.11	99	0.45
						400	3.65	34.20	0.45	2.39	27.21	90	0.55
						500	3.46	34.28	0.39	2.35	27.29	83	0.64
						600	3.27	34.34	0.37	2.34	27.36	77	0.72
						700	3.09	34.39	0.38	2.35	27.41	72	0.79
						800	2.92	34.42	0.43	2.39	27.45	69	0.86

JOHN N. COBB; July 26, 1955; 0217 GCT; 53°47'N, 156°23'W; wind, 290°, force 2; weather, fog; sea, slight.

46

0	10.32	32.65	6.70	1.01	25.09	0	10.32	32.65	6.70	1.01	25.09	288	0.00
9	10.04	32.60	6.64	1.20	25.09	10	9.94	32.61	6.65	1.19	25.12	286	0.03
19	9.02	32.67	6.76	1.14	25.32	20	8.89	32.67	6.79	1.14	25.33	265	0.06
47	6.04	32.78	6.94	1.20	25.82	30	7.71	32.69	6.96	1.13	25.53	247	0.08
93	3.60	33.38	4.98	1.97	26.55	50	5.84	32.82	6.81	1.26	25.87	214	0.13
232	3.98	34.02	0.46	2.56	27.03	75	4.40	33.17	5.72	1.70	26.31	172	0.18
						100	3.63	33.42	4.67	2.01	26.59	146	0.22
462u	3.62	34.22	0.47	2.58	27.23	150	3.81	33.69	2.71	2.26	26.79	128	0.29
931	2.90	34.42	0.47	2.42	27.46	200	3.93	33.91	1.20	2.46	26.95	113	0.35
						250	3.95	34.04	0.46	2.56	27.05	104	0.40
						300	3.87	34.09	0.46	2.57	27.10	100	0.45
						400	3.72	34.17	0.47	2.58	27.18	93	0.55
						500	3.56	34.25	0.47	2.58	27.26	86	0.64
						600	3.41	34.31	0.47	2.56	27.32	81	0.72
						700	3.25	34.36	0.47	2.53	27.37	76	0.80
						800	3.10	34.39	0.47	2.49	27.41	73	0.88

JOHN N. COBB; July 27, 1955; 0859 GCT; 53°28'N, 158°45'W; wind, missing; weather, missing; sea, missing.

47

0	9.98	32.46	6.56	1.01	24.99	0	9.98	32.46	6.56	1.01	25.00	297	0.00
10	9.92	32.47	6.65	1.05	25.02	10	9.92	32.47	6.65	1.05	25.01	296	0.03
20	9.91	32.52	6.68	1.02	25.06	20	9.91	32.52	6.68	1.02	25.05	292	0.06
49	5.06	32.81	6.93	1.13	25.96	30	7.91	32.62	6.89	1.03	25.44	255	0.09
98	3.49	33.29	4.92	1.86	26.49	50	5.02	32.82	6.89	1.15	25.97	205	0.13
244	3.98	34.05	0.44	2.49	27.05	75	4.12	33.08	5.84	1.55	26.27	176	0.18
						100	3.50	33.30	4.83	1.87	26.51	154	0.22
478	3.52	34.25	0.44	2.51	27.26	150	3.73	33.62	2.92	2.14	26.74	133	0.29
954	2.69	34.42	0.60	2.34	27.47	200	3.90	33.87	1.42	2.35	26.92	116	0.36
						250	3.97	34.06	0.44	2.49	27.06	103	0.41
						300	3.87	34.10	0.44	2.50	27.11	99	0.46
						400	3.67	34.19	0.43	2.51	27.20	91	0.56
						500	3.48	34.26	0.44	2.51	27.27	85	0.64
						600	3.29	34.32	0.46	2.49	27.34	79	0.72
						700	3.12	34.37	0.48	2.47	27.39	74	0.80
						800	2.94	34.40	0.53	2.43	27.43	71	0.88

431

UW

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OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

48	JOHN N. COBB; July 30, 1955; 0901 GCT; 53°10'N, 161°30'W; wind, 220°, force 2; weather, fog; sea, slight.												
	0	9.54	32.51	6.46	0.78	25.11	0	9.54	32.51	6.46	0.78	25.11	286 0.00
	10	9.49	32.51	6.60	0.91	25.12	10	9.49	32.51	6.60	0.91	25.11	286 0.03
	20	8.87	32.52	6.65	0.92	25.22	20	8.87	32.52	6.65	0.92	25.22	276 0.06
	49	4.72	32.78	6.78	1.20	25.97	30	7.13	32.60	6.85	1.01	25.54	246 0.08
	98	3.86	33.44	3.85	1.80	26.57	50	4.70	32.80	6.71	1.21	25.99	203 0.13
	245	3.98	34.04	0.62	3.36	27.04	75	4.21	33.16	5.11	1.52	26.33	171 0.18
							100	3.86	33.45	3.80	1.83	26.59	146 0.22
	489	3.96	34.25	0.37	2.99	27.21	150	3.91	33.69	2.44	2.51	26.78	129 0.28
	971	2.55	34.48	0.56	3.15	27.52	200	3.95	33.89	1.36	3.02	26.93	115 0.34
							250	3.98	34.04	0.60	3.35	27.05	104 0.40
							300	4.02	34.09	0.54	3.25	27.08	101 0.45
							400	4.02	34.18	0.44	3.09	27.15	96 0.55
							500	3.95	34.26	0.36	2.98	27.23	90 0.64
							600	3.80	34.32	0.34	2.92	27.29	84 0.73
							700	3.57	34.38	0.35	2.91	27.36	78 0.81
							800	3.26	34.43	0.39	2.96	27.43	72 0.89
49	JOHN N. COBB; July 31, 1955; 0506 GCT; 52°45'N, 163°27'W; wind, 220°, force 1; weather, fog; sea, smooth.												
	0	10.43	31.84	6.40	0.59	24.44	0	10.43	31.84	6.40	0.59	24.44	350 0.00
	10	9.94	32.07	6.41	0.43	24.71	10	9.94	32.07	6.41	0.43	24.70	326 0.03
	19	9.84	32.09	6.43	0.48	24.73	20	9.67	32.10	6.45	0.49	24.77	319 0.07
	48	5.88	32.53	6.47	0.94	25.63	30	8.10	32.25	6.56	0.65	25.12	285 0.10
	98	3.78	33.43	4.24	1.87	26.57	50	5.78	32.57	6.37	0.98	25.68	232 0.15
	244	3.88	34.00	0.82	2.37	27.02	75	4.61	33.06	5.21	1.49	26.20	183 0.20
							100	3.78	33.44	4.18	1.88	26.59	146 0.24
	480	3.52	34.21	0.56	2.48	27.23	150	3.84	33.67	2.73	2.09	26.77	130 0.31
	957	2.70	34.38	0.56	2.46	27.43	200	3.88	33.86	1.59	2.25	26.91	116 0.37
							250	3.87	34.01	0.81	2.37	27.03	106 0.43
							300	3.80	34.06	0.74	2.40	27.08	101 0.48
							400	3.65	34.15	0.63	2.45	27.17	94 0.58
							500	3.49	34.22	0.55	2.49	27.24	88 0.67
							600	3.33	34.28	0.49	2.51	27.30	82 0.75
							700	3.16	34.33	0.47	2.51	27.36	78 0.83
							800	2.98	34.36	0.48	2.50	27.40	74 0.91
50	JOHN N. COBB; August 1, 1955; 0555 GCT; 52°10'N, 165°25'W; wind, direction missing, force 3; weather, fog; sea, slight.												
	0	9.66	32.18	6.61	0.62	24.83	0	9.66	32.18	6.61	0.62	24.83	313 0.00
	10	9.30	32.22	6.70	0.62	24.92	10	9.30	32.22	6.70	0.62	24.92	304 0.03
	20	8.95	32.38	6.70	0.92	25.10	20	8.95	32.38	6.70	0.92	25.10	288 0.06
	49	4.78	32.70	6.93	1.37	25.91	30	7.21	32.49	6.89	1.10	25.44	255 0.09
	98	3.81	33.21	5.17	1.67	26.39	50	4.76	32.71	6.90	1.38	25.91	210 0.14
	247	3.88	34.00	0.95	2.46	27.03	75	4.20	32.99	5.98	1.53	26.19	184 0.18
							100	3.81	33.22	5.10	1.68	26.41	163 0.23
	478	3.64	34.20	0.49	2.52	27.21	150	3.85	33.54	3.35	2.01	26.66	140 0.30
	950	2.69	34.43	0.54	2.58	27.47	200	3.88	33.81	1.95	2.27	26.87	120 0.37
							250	3.88	34.00	0.94	2.46	27.03	106 0.42
							300	3.84	34.05	0.82	2.48	27.07	103 0.48
							400	3.74	34.14	0.62	2.50	27.15	96 0.58
							500	3.61	34.22	0.47	2.52	27.23	89 0.67
							600	3.45	34.28	0.38	2.54	27.29	84 0.75
							700	3.27	34.34	0.35	2.56	27.36	78 0.84
							800	3.06	34.38	0.38	2.57	27.41	74 0.91

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

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JOHN N. COBB; August 2, 1955; 0314 GCT; 53°20'N, 165°25'W; wind, 290°, force 2; weather, cloudy; sea, smooth.

51

0	10.34	31.78	6.90	0.67	24.40	0	10.34	31.78	6.90	0.67	24.41	353	0.00
10	8.34	31.82	7.00	0.69	24.76	10	8.34	31.82	7.00	0.69	24.75	320	0.03
19	5.11	32.08	6.70	1.25	25.37	20	5.07	32.08	6.68	1.25	25.38	261	0.06
49	4.21	32.20	5.98	1.30	25.57	30	4.68	32.11	6.42	1.26	25.44	255	0.09
98	4.50	32.58	5.13	1.59	25.83	50	4.22	32.21	5.97	1.31	25.57	243	0.14
245	4.70	33.89	1.58	2.25	26.85	75	4.38	32.40	5.56	1.46	25.71	230	0.20
						100	4.51	32.60	5.06	1.60	25.85	217	0.25
471	3.93	34.13	0.47	2.74	27.12	150	4.63	33.15	3.62	1.85	26.27	177	0.35
940	3.11	34.37	0.40	2.48	27.40	200	4.70	33.59	2.43	2.08	26.61	145	0.43
						250	4.68	33.90	1.55	2.27	26.86	122	0.50
						300	4.49	33.96	1.24	2.41	26.93	116	0.56
						400	4.15	34.06	0.74	2.63	27.05	106	0.67
						500	3.85	34.15	0.38	2.77	27.15	97	0.77
						600	3.60	34.23	0.16	2.84	27.24	89	0.86
						700	3.40	34.29	0.06	2.83	27.30	83	0.95
						800	3.24	34.33	0.11	2.74	27.35	79	1.03

JOHN N. COBB; August 5, 1955; 0239 GCT; 53°43'N, 160°13'W; wind, missing; weather, overcast; sea, moderate.

53

0	11.50	32.31	6.48	0.54	24.60	0	11.50	32.31	6.48	0.54	24.62	333	0.00
10	11.44	32.33	6.63	0.58	24.64	10	11.44	32.33	6.63	0.58	24.64	331	0.03
20	9.26	32.51	6.72	1.07	25.23	20	9.26	32.51	6.72	1.07	25.15	283	0.06
50	4.30	32.88	6.88	1.68	26.09	30	7.22	32.64	6.94	1.30	25.55	244	0.09
99	3.68	33.45	3.79	2.21	26.60	50	4.30	32.88	6.88	1.68	26.09	193	0.13
247	3.99	34.02	0.83	2.71	27.03	75	3.94	33.19	5.16	1.97	26.38	166	0.18
						100	3.68	33.45	3.76	2.21	26.61	144	0.22
485	3.63	34.23	0.43	2.78	27.23	150	3.83	33.68	2.53	2.42	26.78	129	0.29
971	2.71	34.43	0.57	2.55	27.47	200	3.94	33.88	1.55	2.59	26.92	116	0.35
						250	3.99	34.02	0.82	2.71	27.03	106	0.40
						300	3.91	34.07	0.72	2.74	27.08	102	0.45
						400	3.77	34.16	0.54	2.77	27.16	94	0.55
						500	3.61	34.24	0.41	2.78	27.24	88	0.64
						600	3.43	34.31	0.35	2.77	27.32	81	0.73
						700	3.25	34.36	0.32	2.74	27.37	76	0.81
						800	3.06	34.39	0.37	2.69	27.41	73	0.88

JOHN N. COBB; August 6, 1955; 0752 GCT; 55°35'N, 152°44'W; wind, 300°, force 6; weather, partly cloudy; sea, high.

54

0	11.78	32.23	6.00	0.71	24.50	0	11.78	32.23	6.00	0.71	24.50	344	0.00
10	11.78	32.23	6.01	0.60	24.50	10	11.78	32.23	6.01	0.60	24.50	344	0.03
20	9.96	32.34	5.94	0.87	24.90	20	9.96	32.34	5.94	0.87	24.91	306	0.07
49	-	-	6.48	1.24	-	30	8.94	32.49	6.26	1.00	25.19	280	0.10
98	3.92	33.31	4.66	1.86	26.47	50	7.11	32.76	6.45	1.25	25.66	234	0.15
234	4.05	33.99	0.56	2.62	27.00	75	5.24	33.07	5.49	1.59	26.14	189	0.20
						100	3.92	33.32	4.58	1.88	26.48	157	0.24
467	3.62	34.19	0.44	2.59	27.20	150	4.00	33.62	2.74	2.22	26.71	135	0.32
944	2.83	34.38	0.47	2.53	27.43	200	4.04	33.86	1.31	2.48	26.90	118	0.38
						250	4.02	34.01	0.55	2.62	27.02	107	0.44
						300	3.93	34.05	0.52	2.61	27.06	104	0.49
						400	3.74	34.14	0.46	2.60	27.15	96	0.59
						500	3.56	34.21	0.43	2.59	27.22	89	0.68
						600	3.39	34.27	0.40	2.57	27.29	84	0.77
						700	3.22	34.32	0.40	2.56	27.34	79	0.85
						800	3.06	34.35	0.41	2.55	27.38	76	0.92

UW

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OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

55

JOHN N. COBB; August 7, 1955; 0600 GCT; 55°01'N, 155°32'W; wind, 260°, force 5; weather, overcast; sea, very rough.

0	11.71	32.03	6.10	0.59	24.36	0	11.71	32.03	6.10	0.59	24.36	358	0.00
10	11.69	32.04	6.20	0.74	24.37	10	11.69	32.04	6.20	0.74	24.37	357	0.04
20	11.63	32.03	6.15	0.75	24.38	20	11.63	32.03	6.15	0.75	24.38	357	0.07
49	5.61	32.87	6.55	1.25	25.95	30	9.13	32.37	6.40	0.93	25.06	291	0.10
98	4.03	33.30	4.98	1.93	26.45	50	5.57	32.88	6.52	1.27	25.95	206	0.15
242	4.09	33.98	0.69	2.46	26.98	75	4.67	33.11	5.71	1.64	26.24	180	0.20
						100	4.03	33.31	4.91	1.94	26.46	158	0.24
466	3.72	34.20	0.40	2.64	27.20	150	4.08	33.59	3.07	2.16	26.68	138	0.32
935	2.85	34.39	0.58	2.59	27.43	200	4.10	33.83	1.61	2.34	26.87	121	0.38
						250	4.08	33.99	0.68	2.47	27.00	109	0.44
						300	4.00	34.04	0.59	2.52	27.05	105	0.50
						400	3.83	34.14	0.46	2.60	27.14	96	0.60
						500	3.66	34.23	0.38	2.66	27.23	89	0.69
						600	3.48	34.29	0.35	2.68	27.30	83	0.78
						700	3.30	34.34	0.36	2.69	27.35	78	0.86
						800	3.11	34.37	0.43	2.66	27.39	75	0.93

A

JOHN N. COBB; August 10, 1955; 2144 GCT; 57°22'N, 150°19'W; wind, 025°, force 3; weather, partly cloudy; sea, rough.

0	11.94	32.18	6.34	0.51	24.43	0	11.94	32.18	6.34	0.51	24.43	350	0.00
10	11.56	32.20	6.47	0.40	24.52	10	11.56	32.20	6.47	0.40	24.52	343	0.04
19	10.32	32.24	6.41	0.45	24.77	20	10.11	32.26	6.41	0.50	24.82	314	0.07
48	5.69	32.81	6.10	1.75	25.88	30	8.18	32.49	6.34	0.98	25.30	268	0.10
96	5.18	33.21	4.63	2.92a)	26.24	50	5.67	32.83	6.04	1.83	25.90	211	0.14
241	4.61	33.92	1.52	2.24	26.88	75	5.38	33.05	5.24	2.67	26.11	192	0.20
						100	5.14	33.24	4.51	3.28	26.29	175	0.24
480u	-	34.10	0.65	2.46	-	150	4.80	33.56	3.23	3.78	26.58	148	0.32
						200	4.62	33.80	2.20	3.32	26.79	129	0.39

26

JOHN N. COBB; August 11, 1955; 0759 GCT; 56°30'N, 148°48'W; wind, 350°, force 3; weather, overcast; sea, moderate.

0	11.96	32.67	6.38	1.09	24.84	0	11.96	32.67	6.38	1.09	24.81	315	0.00
10	11.77	32.69	6.34	1.20	24.85	10	11.77	32.69	6.34	1.20	24.86	310	0.03
20	10.88	32.71	6.55	1.23	25.03	20	10.88	32.71	6.55	1.23	25.04	294	0.06
50	4.90	33.02	6.38	1.93	26.14	30	8.72	32.81	6.65	1.49	25.47	252	0.09
99	-	33.61	3.16	2.53	-	50	4.90	33.02	6.38	1.93	26.14	189	0.13
247	3.92	34.01	-	2.93	27.03	75		33.35	4.66	2.27			
						100	4.62	33.61	3.15	2.53	26.64	142	
477	-	34.18	0.45	3.06	-	150	4.37	33.77	2.64	2.70	26.79	128	
947	2.76	34.42	0.60	3.13	27.27	200	4.13	33.91	2.18	2.83	26.93	115	
						250		34.01	1.77	2.93			
						300		34.05	1.40	2.97			
						400		34.13	0.80	3.02			
						500		34.20	0.37	3.07			
						600		34.26	0.11	3.10			
						700		34.31	0.03	3.13			
						800		34.36	0.13	3.14			

27

JOHN N. COBB; August 12, 1955; 0528 GCT; 56°24'N, 146°23'W; wind, direction missing, force 4; weather, overcast; sea, rough.

0	11.42	32.80	6.44	-	25.01	0	11.42	32.80	6.44		25.01	296	0.00
10	11.40	32.80	6.45	0.71	25.01	10	11.40	32.80	6.45	0.71	25.01	296	0.03
20	9.70	32.84	6.66	0.92	25.34	20	9.70	32.84	6.66	0.92	25.34	265	0.06
50	5.03	32.95	6.93	1.24	26.07	30	7.81	32.87	6.85	1.02	25.65	235	0.08
100	4.01	33.32	5.29	1.86	26.47	50	5.03	32.95	6.93	1.24	26.07	195	0.13
						75	3.46	33.11	6.44	1.54	26.36	168	0.17
250u	3.82	33.95	0.99	2.88	26.99	100	4.01	33.32	5.29	1.86	26.47	158	0.21
498u	3.66	34.18	0.53	3.09	27.18								

a) This value not used in drawing smooth curve.

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

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JOHN N. COBB; August 17, 1955; 1851 GCT; 56°05'N, 144°20'W; wind, 315°, force 3; weather, partly cloudy; sea, calm.

28

0	12.09	32.56	6.40	0.60	24.70	0	12.09	32.56	6.40	0.60	24.70	325	0.00
10	11.54	32.75	6.26	0.75	24.96	10	11.54	32.75	6.26	0.75	24.95	302	0.03
20	10.86	32.80	6.25	0.96	25.11	20	10.86	32.80	6.25	0.96	25.11	287	0.06
50	5.70	32.96	6.78	1.40	26.00	30	8.80	32.85	6.52	1.13	25.49	251	0.09
99	3.91	33.20	5.90	1.66	26.38	50	5.70	32.96	6.78	1.40	26.00	202	0.13
249	3.83	33.95	0.83	2.83	26.99	75	4.68	33.08	6.38	1.53	26.21	182	0.18
						100	3.91	33.21	5.86	1.67	26.40	165	0.22
480	3.60	34.18	0.56	2.97	27.19	150	3.89	33.51	3.74	2.15	26.64	142	0.30
956	2.81	34.38	0.44	2.94	27.42	200	3.86	33.76	2.06	2.54	26.84	124	0.37
						250	3.83	33.95	0.83	2.83	26.99	110	0.42
						300	3.79	34.01	0.76	2.87	27.04	105	0.48
						400	3.69	34.11	0.64	2.93	27.13	97	0.58
						500	3.58	34.20	0.54	2.98	27.21	90	0.67
						600	3.44	34.27	0.47	3.00	27.28	84	0.76
						700	3.29	34.32	0.43	3.01	27.34	80	0.84
						800	3.12	34.36	0.41	3.00	27.39	76	0.92

JOHN N. COBB; August 18, 1955; 0437 GCT; 56°13.5'N, 142°34'W; wind, 135°, force 1; weather, partly cloudy; sea, calm.

29

0	11.83	32.75	6.35	1.06	24.89	0	11.83	32.75	6.35	1.06	24.90	307	0.00
10	11.06	32.75	6.34	0.89	25.09	10	11.06	32.75	6.34	0.89	25.04	294	0.03
20	9.84	32.79	6.65	0.93	25.28	20	9.84	32.79	6.65	0.93	25.28	271	0.06
49	5.85	32.84	7.03	1.23	25.89	30	8.19	32.80	6.85	1.06	25.54	246	0.08
98	4.54	33.05	6.32	1.25	26.21	50	5.82	32.84	7.02	1.23	25.89	212	0.13
242	4.21	33.95	1.34	2.38	26.95	75	5.08	32.95	6.72	1.22	26.07	196	0.18
						100	4.54	33.07	6.23	1.27	26.22	182	0.23
480	3.65	34.16	0.67	2.67	27.17	150	4.42	33.44	4.12	1.74	26.53	153	0.31
						200	4.31	33.75	2.44	2.12	26.78	129	0.38
						250	4.19	33.98	1.16	2.42	26.98	111	0.44
						300	4.08	34.15	0.96	2.63	27.12	98	0.50
						400	3.84	34.27	0.69	2.79	27.24	87	0.59

JOHN N. COBB; August 19, 1955; 0726 GCT;^{a)} 56°10'N, 140°41'W; wind, 225°, force 4; weather, overcast; sea, moderate.

30

0	11.83	32.44	6.27	0.60	24.66	0	11.83	32.44	6.27	0.60	24.66	329	0.00
10	11.81	32.44	6.20	0.49	24.66	10	11.81	32.44	6.20	0.49	24.66	329	0.03
20	8.84	32.66	6.83	0.96	25.34	20	8.84	32.66	6.83	0.96	25.33	265	0.06
50	5.78	32.84	6.79	1.08	25.89	30	7.61	32.71	6.92	0.98	25.56	244	0.09
99	4.88	33.30	4.79	1.59	26.35	50	5.78	32.84	6.79	1.08	25.90	212	0.13
248	4.74	33.92	1.50	2.36	26.88	75	5.27	33.09	5.71	1.36	26.15	188	0.18
						100	4.88	33.31	4.76	1.60	26.37	167	0.23
490	4.11	34.08	0.66	2.62	27.06	150	4.85	33.56	3.43	1.91	26.57	149	0.31
960	2.96	34.37	0.45	2.78	27.41	200	4.81	33.76	2.33	2.16	26.74	134	0.38
						250	4.73	33.92	1.49	2.36	26.87	121	0.44
						300	4.60	33.95	1.28	2.43	26.91	118	0.50
						400	4.34	34.02	0.92	2.54	26.99	111	0.62
						500	4.08	34.09	0.64	2.63	27.08	104	0.72
						600	3.83	34.15	0.45	2.70	27.15	97	0.82
						700	3.58	34.21	0.34	2.75	27.22	91	0.92
						800	3.34	34.27	0.31	2.78	27.29	85	1.01

a) Time of upper cast.

UW

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OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

31 JOHN N. COBB; August 20, 1955; 0311 GCT; 56°17'N, 138°39'W; wind, 200°, force 4; weather, overcast; sea, moderate.

0	-	32.47	6.34	2.10u	-
10	-	32.46	6.26	0.84u	-
20	-	32.50	6.33	0.82u	-
49	-	32.74	6.90	0.49u	-
98	-	32.83	6.50	0.29u	-
246	-	33.90	1.71	0.33u	-
451	4.03	34.13	0.60	2.33	27.11
935	3.12	34.37	0.45	2.51	27.39

31A JOHN N. COBB; August 20, 1955; 2139 GCT; 56°18'N, 138°37'W; wind, 225°, force 3; weather, overcast; sea, slight.

0	12.24	31.94	6.60	0.35	24.20	0	12.24	31.94	6.60	0.35	24.19	374	0.00
10	12.09	32.46	6.61	0.35	24.62	10	12.09	32.46	6.61	0.35	24.62	333	0.04
20	10.42	32.54	6.59	0.52	24.99	20	10.42	32.54	6.59	0.52	24.98	299	0.07
50	5.60	32.71	6.26	1.00	25.82	30	8.44	32.58	6.53	0.70	25.33	266	0.10
100	5.03	33.28	4.75	1.41	26.33	50	5.60	32.71	6.26	1.00	25.82	220	0.14
						75	5.28	33.02	5.48	1.21	26.10	193	0.20
242	4.84	33.89	1.65	2.30	26.83	100	5.03	33.28	4.75	1.41	26.33	171	0.24
476	4.04	34.09	0.62	2.48	27.08	150	4.99	33.54	3.44	1.79	26.54	152	0.32
960	3.06	34.42	0.40	2.55	27.44	200	4.92	33.75	2.37	2.10	26.72	136	0.40
						250	4.81	33.90	1.60	2.31	26.85	124	0.46
						300	4.62	33.94	1.33	2.35	26.90	120	0.52
						400	4.28	34.03	0.88	2.43	27.01	110	0.64
						500	3.97	34.11	0.55	2.49	27.10	101	0.74
						600	3.70	34.19	0.31	2.54	27.19	93	0.84
						700	3.47	34.26	0.20	2.56	27.27	86	0.93
						800	3.28	34.32	0.19	2.57	27.34	80	1.01

32 JOHN N. COBB; August 22, 1955; 0257 GCT; 56°19.5'N, 136°40.5'W; wind, 315°, force 3; weather, overcast; sea, slight.

0	12.32	32.42	6.28	0.62	24.56	0	12.32	32.42	6.28	0.62	24.55	340	0.00
10	12.18	32.48	6.34	0.53	24.62	10	12.18	32.48	6.34	0.53	24.62	333	0.03
20	12.07	32.48	6.34	0.60	24.64	20	12.07	32.48	6.34	0.60	24.64	331	0.07
50	7.10	32.66	6.68	1.06	25.59	30	10.08	32.55	6.48	0.79	25.05	292	0.10
100	5.57	32.78	6.61	1.14	25.87	50	7.10	32.66	6.68	1.06	25.59	242	0.15
						75	6.25	32.70	6.73	1.09	25.73	228	0.21
248	5.01	33.85	2.26	1.96	26.79	100	5.57	32.78	6.61	1.14	25.87	214	0.26
456	4.25	34.07	0.75	2.51	27.04	150	5.38	33.23	4.84	1.46	26.25	179	0.36
928	3.17	34.29	0.37	2.61	27.32	200	5.19	33.59	3.37	1.73	26.56	151	0.44
						250	5.00	33.85	2.24	1.97	26.79	130	0.52
						300	4.80	33.91	1.80	2.13	26.86	123	0.58
						400	4.44	34.02	1.08	2.39	26.98	112	0.70
						500	4.11	34.11	0.54	2.59	27.09	103	0.80
						600	3.83	34.18	0.19	2.71	27.17	95	0.90
						700	3.58	34.23	0.02	2.76	27.24	90	0.99
						800	3.37	34.27	0.06	2.74	27.29	85	1.08

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

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JOHN N. COBB; August 22, 1955; 2309 GCT; 56°19'N, 136°44.5'W; wind, 270°, force 4; weather, overcast; sea, slight.

32A

0	12.25	32.44	6.34	0.60	24.60	0	12.25	32.44	6.34	0.60	24.58	337	0.00
10	12.21	32.46	6.40	0.59	24.60	10	12.21	32.46	6.40	0.59	24.60	335	0.03
20	11.56	32.56	6.60	0.70	24.78	20	11.56	32.56	6.60	0.70	24.80	316	0.07
50	7.14	32.69	6.82	1.05	25.61	30	9.80	32.61	6.70	0.84	25.14	284	0.10
100	5.45	32.84	-	1.23	25.95	50	7.14	32.69	6.82	1.05	25.60	240	0.15
						75	6.20	32.75	5.99	1.13	25.77	224	0.21
250	4.84	33.88	1.90	2.36	26.83	100	5.45	32.84		1.23	25.94	209	0.26
480	4.09	34.13	1.00	2.76	27.10	150	5.24	33.26	3.89	1.68	26.29	175	0.36
964	3.12	34.39	0.39	2.97	27.41	200	5.03	33.61	2.78	2.06	26.59	147	0.44
						250	4.84	33.88	1.90	2.36	26.83	126	0.51
						300	4.66	33.94	1.67	2.46	26.90	120	0.57
						400	4.33	34.05	1.27	2.64	27.02	109	0.68
						500	4.03	34.15	0.94	2.79	27.13	99	0.78
						600	3.77	34.23	0.68	2.89	27.22	91	0.88
						700	3.55	34.29	0.50	2.96	27.29	85	0.97
						800	3.36	34.34	0.40	2.99	27.35	80	1.05

JOHN N. COBB; August 26, 1955; 1936 GCT; 56°57'N, 135°41.5'W; wind, missing; weather, missing; sea, missing.

B

0u	11.28	31.48	6.44	0.64	24.01	0	11.28	31.48	6.44	0.64	24.01	391	0.00
10u	11.10	31.50	6.42	0.68	24.06	10	11.10	31.50	6.42	0.68	24.06	386	0.04
20u	10.91	31.65	6.15	0.77	24.21	20		31.65	6.15	0.77			
50u	8.55	32.19	5.14	1.09	25.02	30		31.86	5.79	0.86			
100u	-	32.44	3.96	1.90	-	50		32.19	5.14	1.09			
						75		32.42	4.47	1.45			
						100		32.44	3.96	1.90			

JOHN N. COBB; August 27, 1955; 1906 GCT; 55°34'N, 135°24'W; wind, 225°, force 4; weather, overcast; sea, slight.

33

0	12.18	32.30	6.31	0.40	24.48	0	12.18	32.30	6.31	0.40	24.48	346	0.00
10	12.18	32.30	6.29	0.20	24.48	10	12.18	32.30	6.29	0.20	24.48	346	0.04
20	12.10	-	6.33	0.31	-	20	12.10	32.34	6.33	0.31	24.53	342	0.07
50	7.11	32.64	6.52	1.00	25.57	30	10.10	32.46	6.41	0.60	24.98	300	0.10
100	5.56	32.80	6.55	1.01	25.89	50	7.11	32.64	6.52	1.00	25.57	243	0.16
						75		32.72	6.56	1.00			
250	-	-	-	-	-	100	5.56	32.80	6.55	1.01	25.89	213	
474	-	34.13	0.71	2.63	-	150		33.04	5.49	1.30			
956	3.26	34.36	0.39	2.76	27.29	200		33.25	4.51	1.57			
						250		33.45	3.62	1.82			
						300		33.64	2.81	2.04			
						400		33.95	1.48	2.41			
						500		34.18	0.68	2.69			
						600		34.35	0.59	2.88			
						700		34.45	0.55	2.97			
						800		34.47	0.48	2.96			

UW

JNC-23

OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t	Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

34

JOHN N. COBB; August 29, 1955; 1936 GCT; 55°11'N, 136°48'W; wind, 290°, force 3; weather, cloudy; sea, smooth.

0	12.22	32.47	6.23	0.48	24.61	0	12.22	32.47	6.23	0.48	24.61	334	0.00
10	12.06	32.47	6.22	0.45	24.63	10	12.06	32.47	6.22	0.45	24.64	332	0.03
20	11.92	32.49	6.32	0.49	24.68	20	11.92	32.49	6.32	0.49	24.68	328	0.07
50	6.96	32.73	6.82	1.12	25.65	30	9.95	32.58	6.55	0.74	25.09	288	0.10
100	5.00	32.93	6.26	1.41	26.05	50	6.96	32.73	6.82	1.12	25.66	234	0.15
						75	5.86	32.82	6.60	1.27	25.87	215	0.20
248	4.68	33.87	1.75	2.05	26.84	100	5.00	32.93	6.26	1.41	26.06	197	0.26
464	4.14	34.07	0.72	2.68	27.06	150	4.90	33.32	4.39	1.65	26.38	167	0.35
942	3.02	34.34	0.41	2.81	27.38	200	4.79	33.64	2.87	1.86	26.64	142	0.42
						250	4.67	33.87	1.74	2.06	26.84	124	0.49
						300	4.55	33.92	1.44	2.23	26.89	120	0.55
						400	4.30	34.02	0.96	2.53	27.00	111	0.67
						500	4.05	34.10	0.59	2.75	27.09	103	0.77
						600	3.81	34.17	0.36	2.89	27.17	96	0.87
						700	3.57	34.23	0.22	2.96	27.24	89	0.97
						800	3.34	34.28	0.22	2.95	27.30	84	1.05

35

JOHN N. COBB; August 30, 1955; 1917 GCT; 55°03'N, 139°18'W; wind, direction variable, force 1; weather, overcast; sea, smooth.

0	11.83	32.52	6.18	0.38	24.73	0	11.83	32.52	6.18	0.38	24.72	324	0.00
10	11.68	-	6.17	-	-	10	11.68	32.52	6.17		24.75	321	0.03
20	11.62	32.52	6.15	-	24.77	20	11.62	32.52	6.15		24.76	320	0.06
50	5.88	32.71	6.81	0.10a)	25.78	30	9.27	32.58	6.54		25.20	278	0.09
98	4.89	33.13	4.56	1.14	26.22	50	5.88	32.71	6.81		25.78	223	0.14
						75	5.31	32.94	5.52		26.03	199	0.20
242	4.56	33.91	3.42	2.59	26.88	100	4.89	33.14	4.55	1.17	26.24	180	0.24
480	4.02	34.14	0.55	2.76	27.12	150	4.77	33.47	4.20	1.78	26.51	154	0.33
966	3.04	34.36	0.39	2.98	27.40	200	4.66	33.73	3.80	2.27	26.73	134	0.40
						250	4.54	33.92	3.29	2.60	26.89	119	0.46
						300	4.42	33.97	2.55	2.64	26.95	115	0.52
						400	4.20	34.07	1.31	2.71	27.05	106	0.63
						500	3.98	34.16	0.52	2.77	27.14	98	0.73
						600	3.76	34.23	0.45	2.83	27.22	91	0.83
						700	3.56	34.28	0.41	2.88	27.28	86	0.92
						800	3.36	34.32	0.39	2.92	27.33	81	1.00

36-I

JOHN N. COBB; August 31, 1955; 0442 GCT; 55°01'N, 141°30'W; wind, missing; weather, missing; sea, missing.

0	11.26	32.67	6.44	0.63	24.93	0	11.26	32.67	6.44	0.63	24.94	303	0.00
10	11.24	32.67	6.44	0.68	24.95	10	11.24	32.67	6.44	0.68	24.94	302	0.03
20	11.26	32.67	6.47	0.71	24.93	20	11.26	32.67	6.47	0.71	24.94	303	0.06
50	5.49	32.85	6.85	1.02	25.94	30	8.89	32.72	6.73	0.82	25.37	262	0.09
100	4.81	33.34	4.84	1.39	26.40	50	5.49	32.85	6.85	1.02	25.94	208	0.14
						75	5.10	33.11	5.79	1.21	26.19	184	0.18
220	4.92	33.89	1.72	2.14	26.83	100	4.81	33.34	4.84	1.39	26.40	164	0.23
426	4.07	34.08	0.67	2.38	27.06	150	4.91	33.61	3.32	1.76	26.61	146	0.30
854	3.24	34.33	0.38	2.53	27.35	200	4.93	33.82	2.12	2.05	26.77	130	0.37
						250	4.78	33.92	1.53	2.18	26.87	122	0.44
						300	4.56	33.97	1.24	2.25	26.93	116	0.50
						400	4.16	34.06	0.77	2.36	27.04	106	0.61
						500	3.84	34.14	0.44	2.44	27.14	98	0.71
						600	3.58	34.21	0.25	2.50	27.22	90	0.80
						700	3.39	34.26	0.19	2.53	27.28	85	0.89
						800	3.28	34.31	0.28	2.54	27.33	81	0.98

a) This value deviates from smooth curve; not used.

OBSERVED						COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t		Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L		m	°C	‰	ml/L	μg at/L	g/L	10 ⁻⁵ cm ³ /g	dyn m

UW

JNC-23

JOHN N. COBB; September 6, 1955; 0556 GCT; 57°38'N, 137°37.5'W; wind, 270°, force 2; weather, partly cloudy; sea, smooth.

65

0	11.17	32.21	6.37	0.18	24.59	0	11.17	32.21	6.37	0.18	24.60	335	0.00
10	11.10	32.21	6.17	0.32	24.61	10	11.10	32.21	6.17	0.32	24.61	334	0.03
20	10.61	32.21	6.12	0.38	24.70	20	10.61	32.21	6.12	0.38	24.70	326	0.07
50	6.93	32.43	5.85	0.98	25.43	30	9.14	32.29	6.01	0.63	25.00	297	0.10
100	5.73	32.71	5.66	1.03	25.81	50	6.93	32.43	5.85	0.98	25.43	257	0.15
						75	6.25	32.56	5.82	1.00	25.62	239	0.21
223	5.52	33.81	2.64	1.47	26.70	100	5.73	32.71	5.66	1.03	25.80	222	0.27
438	4.28	34.04	0.95	1.82	27.01	150	5.69	33.24	4.26	1.23	26.22	182	0.37
880	3.37	34.33	0.41	2.15	27.35	200	5.59	33.66	3.09	1.40	26.57	150	0.46
						250	5.34	33.84	2.37	1.52	26.74	134	0.53
						300	5.02	33.90	1.93	1.61	26.82	127	0.59
						400	4.46	34.00	1.19	1.77	26.97	114	0.71
						500	4.02	34.10	0.64	1.90	27.09	102	0.82
						600	3.69	34.17	0.29	2.00	27.18	94	0.92
						700	3.47	34.24	0.16	2.08	27.26	88	1.01
						800	3.37	34.30	0.22	2.13	27.31	83	1.09

JOHN N. COBB; September 7, 1955; 0117 GCT; 57°46'N, 139°27'W; wind, 290°, force 3; weather, partly cloudy; sea, smooth.

64

0	11.42	32.33	6.36	0.08	24.65	0	11.42	32.33	6.36	0.08	24.65	330	0.00
10	10.97	32.33	6.41	0.10	24.72	10	10.97	32.33	6.41	0.10	24.73	323	0.03
20	10.81	32.33	6.42	0.17	24.75	20	10.81	32.33	6.42	0.17	24.75	320	0.06
50	6.28	32.69	6.41	0.98	25.71	30	8.96	32.46	6.41	0.49	25.16	282	0.10
100	5.54	33.14	6.43	1.36	26.16	50	6.28	32.69	6.41	0.98	25.72	229	0.15
						75	5.88	32.92	6.53	1.18	25.95	207	0.20
244	4.87	-	1.70	1.82	-	100	5.54	33.14	6.43	1.36	26.16	187	0.25
474	4.15	34.10	0.72	2.43	27.07	150	5.29	33.31	4.42	1.53	26.33	172	0.34
954	3.34	34.32	0.39	2.25	27.34	200	5.06	33.46	2.81	1.69	26.47	159	0.42
						250	4.85	33.61	1.67	1.84	26.61	146	0.50
						300	4.67	33.74	1.41	2.01	26.74	135	0.57
						400	4.36	33.96	0.97	2.28	26.94	116	0.69
						500	4.08	34.14	0.64	2.47	27.12	100	0.80
						600	3.85	34.27	0.40	2.57	27.24	89	0.90
						700	3.65	34.35	0.27	2.59	27.33	81	0.98
						800	3.50	34.37	0.25	2.52	27.36	79	1.06

JOHN N. COBB; September 8, 1955; 0413 GCT; 57°35'N, 141°22'W; wind, 270°, force 4; weather, partly cloudy; sea, moderate.

63

0	10.54	32.40	6.46	0.13	24.86	0	10.54	32.40	6.46	0.13	24.85	310	0.00
10	10.52	32.39	6.50	0.10	24.86	10	10.52	32.39	6.50	0.10	24.85	311	0.03
20	9.41	32.49	6.43	0.29	25.11	20	9.41	32.49	6.43	0.29	25.11	286	0.06
50	5.41	32.80	6.20	0.90	25.91	30	7.75	32.59	6.45	0.51	25.44	255	0.09
100	5.24	33.35	3.91	1.50	26.35	50	5.41	32.80	6.20	0.90	25.91	211	0.14
						75	5.33	33.10	4.96	1.23	26.16	188	0.18
240	4.48	33.92	1.48	1.97	26.90	100	5.24	33.35	3.91	1.50	26.36	168	0.23
466	3.92	34.12	0.55	2.37	27.12	150	4.93	33.59	2.88	1.69	26.59	147	0.31
936	2.98	34.36	0.44	2.25	27.40	200	4.66	33.79	2.03	1.85	26.78	130	0.38
						250	4.45	33.93	1.42	1.99	26.91	118	0.44
						300	4.32	33.98	1.18	2.11	26.96	113	0.50
						400	4.08	34.07	0.76	2.28	27.06	104	0.61
						500	3.84	34.15	0.46	2.40	27.15	97	0.71
						600	3.62	34.21	0.27	2.47	27.22	91	0.80
						700	3.41	34.27	0.19	2.47	27.29	85	0.89
						800	3.22	34.31	0.21	2.42	27.34	80	0.97

439

UW

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OBSERVED					COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ_t	Z	T	S	O ₂	PO ₄ -P	σ_t	δ	ΔD
m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	m	°C	‰	ml/L	$\mu\text{g at/L}$	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn m

62

JOHN N. COBB; September 9, 1955; 0305 GCT; 57°25'N, 143°26'W; wind, 200°, force 4; weather, overcast; sea, moderate.

0	9.86	32.57	6.68	0.44	25.09	0	9.86	32.57	6.68	0.44	25.10	287	0.00
10	9.84	32.58	6.63	0.26	25.12	10	9.84	32.58	6.63	0.26	25.11	286	0.03
20	9.33	32.64	6.47	0.26	25.25	20	9.33	32.64	6.47	0.26	25.24	274	0.06
50	5.45	32.89	6.70	0.75	25.98	30	7.74	32.72	6.57	0.44	25.54	245	0.08
100	4.92	33.38	6.61	1.16	26.42	50	5.45	32.89	6.70	0.75	25.98	204	0.13
						75	5.16	33.15	6.76	0.97	26.21	182	0.18
240	4.43	33.90	1.46	1.74	26.89	100	4.92	33.38	6.61	1.16	26.42	162	0.22
466	3.95	34.17	0.54	1.97	27.16	150	4.73	33.60	4.37	1.41	26.62	144	0.30
938	3.07	34.36	0.40	2.01	27.39	200	4.55	33.78	2.56	1.61	26.78	129	0.36
						250	4.41	33.91	1.40	1.75	26.90	119	0.43
						300	4.30	33.98	1.15	1.81	26.97	113	0.48
						400	4.09	34.10	0.75	1.92	27.08	102	0.59
						500	3.88	34.20	0.45	1.99	27.18	93	0.69
						600	3.68	34.28	0.26	2.04	27.27	86	0.78
						700	3.49	34.33	0.17	2.06	27.33	81	0.86
						800	3.31	34.36	0.19	2.06	27.37	78	0.94

61

JOHN N. COBB; September 10, 1955; 0254 GCT; 57°14'N, 145°29'W; wind, 135°, force 3; weather, overcast; sea, moderate.

0	10.37	32.58	6.41	0.53	25.02	0	10.37	32.58	6.41	0.53	25.02	294	0.00
10	10.38	32.57	6.40	0.48	25.01	10	10.38	32.57	6.40	0.48	25.01	296	0.03
20	10.36	32.58	6.46	0.51	25.01	20	10.36	32.58	6.46	0.51	25.03	295	0.06
50	5.81	32.87	7.10	1.02	25.92	30	8.52	32.73	6.81	0.71	25.44	256	0.09
100	4.70	32.20	5.56	1.28	26.30	50	5.81	32.87	7.10	1.02	25.92	210	0.13
						75	5.13	32.36	6.40	1.14	25.59	241	0.19
177	4.91	33.83	2.12	1.84	26.78	100	4.70	32.20	5.56	1.28	25.51	249	0.25
350	4.09	34.01	0.85	2.23	27.01	150	4.88	33.37	3.12	1.67	26.42	163	0.35
718	3.39	34.27	0.37	2.39	27.29	200	4.78	33.86	1.92	1.90	26.82	126	0.43
						250	4.53	33.91	1.50	2.03	26.89	120	0.49
						300	4.29	33.96	1.15	2.14	26.95	114	0.54
						400	3.91	34.06	0.60	2.31	27.07	103	0.65
						500	3.63	34.14	0.29	2.41	27.16	95	0.75
						600	3.46	34.20	0.20	2.44	27.23	90	0.84
						700	3.39	34.26	0.32	2.40	27.28	85	0.93

C

JOHN N. COBB; September 12, 1955; 1811 GCT; 56°03'N, 142°36'W; wind, 160°, force 3; weather, partly cloudy; sea, slight.

0	10.21	32.69	6.34	0.80	25.14	0	10.21	32.69	6.34	0.80	25.14	284	0.00
10	10.17	32.69	6.36	1.00	25.14	10	10.17	32.69	6.36	1.00	25.14	283	0.03
20	10.16	32.69	6.32	0.97	25.14	20	10.16	32.69	6.32	0.97	25.14	283	0.06
50	6.82	32.70	6.93	1.00	25.66	30	8.87	32.67	6.64	0.96	25.34	265	0.08
100	4.80	33.10	5.51	1.47	26.21	50	6.82	32.70	6.93	1.00	25.66	235	0.13
						75	5.68	32.91	6.23	1.25	25.96	206	0.19
236	4.63	33.96	1.42	2.24	26.92	100	4.80	33.10	5.51	1.47	26.22	182	0.24
474	4.06	34.12	0.56	2.59	27.10	150	4.75	33.48	3.71	1.80	26.52	154	0.32
953	2.99	34.37	0.40	2.56	27.41	200	4.69	33.79	2.25	2.08	26.77	130	0.39
						250	4.60	33.97	1.36	2.27	26.93	116	0.45
						300	4.47	34.01	1.14	2.36	26.97	112	0.51
						400	4.23	34.07	0.77	2.51	27.05	106	0.62
						500	4.00	34.14	0.49	2.61	27.12	99	0.72
						600	3.77	34.20	0.31	2.68	27.20	93	0.82
						700	3.54	34.25	0.22	2.70	27.26	88	0.91
						800	3.32	34.30	0.22	2.68	27.32	82	0.99

OBSERVED						COMP	INTERPOLATED					COMPUTED		
Z	T	S	O ₂	PO ₄ -P	σ _t		Z	T	S	O ₂	PO ₄ -P	σ _t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L		m	°C	‰	ml/L	μg at/L	g/L	10 ⁵ cm ³ /g	dyn m

UW

JNC-23

JOHN N. COBB; September 13, 1955; 0412 GCT; 55°00'N, 141°27'W; wind, 160°, force 3; weather, cloudy; sea, moderate.

36-2

0	10.41	32.69	6.34	0.91	25.10	0	10.41	32.69	6.34	0.91	25.10	287	0.00
10	10.41	32.66	6.41	0.89	25.08	10	10.41	32.66	6.41	0.89	25.08	289	0.03
20	10.29	32.65	6.43	0.68a)	25.09	20	10.29	32.65	6.43	0.92	25.09	288	0.06
50	5.95	32.82	6.52	1.21	25.86	30	8.52	32.69	6.57	1.02	25.41	258	0.08
100	5.10	33.38	4.28	1.55	26.40	50	5.95	32.82	6.52	1.21	25.86	215	0.13
						75	5.47	33.13	5.31	1.39	26.16	187	0.18
232	4.78	33.87	1.62	1.93	26.82	100	5.10	33.38	4.28	1.55	26.40	164	0.23
442	4.08	34.11	0.55	2.25	27.09	150	4.99	33.60	3.09	1.71	26.59	147	0.30
888	3.18	34.34	0.40	2.40	27.36	200	4.87	33.78	2.13	1.85	26.75	133	0.37
						250	4.71	33.89	1.51	1.96	26.85	123	0.44
						300	4.53	33.96	1.21	2.05	26.93	117	0.50
						400	4.21	34.07	0.72	2.20	27.05	106	0.61
						500	3.92	34.16	0.37	2.31	27.15	97	0.71
						600	3.67	34.23	0.17	2.39	27.23	90	0.80
						700	3.46	34.29	0.11	2.42	27.30	84	0.89
						800	3.29	34.32	0.20	2.43	27.34	80	0.97

a) This value deviates from smooth curve; not used.

OBSERVED		
Z	T	S
m	°C	‰

PARAGON; August 13, 1955;
0125 GCT; 50°00'N, 175°00'W;
wind, 180°, force 3; weather,
haze; sea, calm; wire angle, 00°.

0a)	11.50	32.70
50	5.56	-
100	-	33.04
250	-	-
500	-	33.43

PARAGON; August 15, 1955;
0821 GCT; 48°00'N, 175°00'W;
wind, 270°, force 2; weather,
fog; sea, calm; wire angle, 00°.

0	13.80	32.63
50	5.56	33.07
100	3.85	33.12
250	3.78	33.79
500	4.46	34.14

PARAGON; August 17, 1955;
0331 GCT; 46°00'N, 175°00'W;
wind, 360°, force 2; weather,
fog; sea, calm; wire angle, 00°.

0	15.70	33.14
50	6.43	33.38
100	4.87	33.29
250	4.45	33.94
500	3.71	34.14

PARAGON; August 19, 1955;
0850 GCT; 45°00'N, 177°30'W;
wind, 045°, force 2; weather,
fog; sea, calm; wire angle, 00°.

0	17.50	32.94
50	7.63	33.51
100	5.65	33.51
250	5.25	33.89
500	3.96	34.16

PARAGON; August 21, 1955;
0805 GCT; 45°00'N, 177°30'E;
wind, 225°, force 4; weather,
cloudy; sea, rough; wire angle,
00°.

0	19.20	33.13
50	7.32	33.41
100	5.58	33.49
250	4.50	33.78
500	3.77	34.05

PARAGON; August 23, 1955;
0510 GCT; 46°00'N, 175°00'E;
wind, 225°, force 5; weather,
cloudy; sea, rough; wire angle,
00°.

0	16.40	33.13
50	7.81	33.35
100	4.80	33.53
250	3.74	33.80
500	3.21	34.09

OBSERVED		
Z	T	S
m	°C	‰

PARAGON; August 14, 1955;
0325 GCT; 49°00'N, 175°00'W;
wind, 270°, force 2; weather,
cloudy; sea, calm; wire angle,
00°.

0	12.70	32.45
50	-	33.04
100	4.08	33.13
250	3.91	33.83
500	3.55	34.10

PARAGON; August 16, 1955;
0320 GCT; 47°00'N, 175°00'W;
wind, 270°, force 2; weather,
fog; sea, calm; wire angle, 00°.

0	15.40	32.63
50	5.84	33.26
100	4.20	33.19
250	3.71	33.84
500	4.52	34.13

PARAGON; August 18, 1955;
0430 GCT; 45°00'N, 175°00'W;
wind, 045°, force 3; weather,
cloudy; sea, calm; wire angle,
missing.

0	16.20	33.22
50	7.48	33.52
100	5.94	33.57
250	5.34	33.96
500	4.02	34.14

PARAGON; August 20, 1955;
0840 GCT; 45°00'N, 180°00';
wind, 180°, force 2; weather,
fog; sea, calm; wire angle, 00°.

0	17.60	33.17
50	7.66	33.49
100	7.55	33.81
250	5.75	33.81
500	4.02	34.01

PARAGON; August 21, 1955;
1125 GCT; 45°00'N, 175°00'E;
wind, 270°, force 4; weather,
cloudy; sea, rough; wire angle,
00°.

0	18.20	33.30
50	7.64	33.43
100	5.80	33.15b)
250	4.90	33.79
500	3.65	34.00

PARAGON; August 24, 1955;
0515 GCT; 47°00'N, 175°00'E;
wind, 270°, force 5; weather,
cloudy; sea, rough; wire angle,
00°.

0	14.60	33.03
50	7.01	33.37
100	3.53	33.37
250	2.90	33.75
500	3.25	34.13

- a) No unprotected thermometers used on this cruise; depths obtained from meter-wheel readings and wire angles (all listed as zero).
b) This value not used in drawing smooth curve.

UW

PAR

1 2

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UW	PAR	OBSERVED		
		Z m	T °C	S ‰
13	14	PARAGON; August 25, 1955; 0340 GCT; 48°00'N, 175°00'E; wind, 225°, force 3; weather, cloudy; sea, rough; wire angle, 00°.		
		0	14.20	33.00
		50	5.47	33.17
		100	4.71	33.24
		250	3.06	33.82
		500	3.22	34.13
15	16	PARAGON; August 27, 1955; 0715 GCT; 50°00'N, 175°00'E; wind, 315°, force 3; weather, clear; sea, rough; wire angle, 00°.		
		0	10.80	32.69
		50	3.92	33.19
		100	3.84	33.31
		250	3.15	33.93
		500	3.13	34.24
17	18	PARAGON; September 3, 1955; 0555 GCT; 50°00'N, 180°00'; wind, 270°, force 5; weather, cloudy; sea, moderate; wire angle, 00°.		
		0	10.70	32.88
		50	4.42	33.25
		100	3.75	33.41
		250	3.74	33.59
		500	3.70	34.18
19	29	PARAGON; September 5, 1955; 2355 GCT; 48°25'N, 179°45'W; wind, 225°, force 8; weather, cloudy; sea, moderate; wire angle, 00°.		
		0	11.20	33.22
		50	5.48	33.22
		100	3.79	33.37
		250	3.08	33.82
		500	3.40	-
28	27	PARAGON; September 14, 1955; 0455 GCT; 49°00'N, 175°00'E; wind, 045°, force 3; weather, overcast; sea, slight; wire angle, 00°.		
		0	10.00	33.05
		50	6.05	33.21
		100	3.28	33.33
		250	3.38	33.78
		500	3.13	34.14

	OBSERVED		
	Z m	T °C	S ‰
	PARAGON; August 26, 1955; 0355 GCT; 49°00'N, 175°00'E; wind, 225°, force 6; weather, cloudy; sea, rough; wire angle, 00°.		
	0	12.70	32.96
	50	4.68	33.23
	100	3.85	33.29
	250	3.03	33.86
	500	3.11	34.15
	PARAGON; August 28, 1955; 0750 GCT; 50°00'N, 177°30'E; wind, 360°, force 3; weather, clear; sea, calm; wire angle, 00°.		
	0	10.70	32.98
	50	4.70	33.21
	100	3.68	33.25
	250	3.16	33.87
	500	3.18	34.20
	PARAGON; September 4, 1955; 0255 GCT; 49°00'N, 180°00'; wind, 270°, force 2; weather, cloudy; sea, smooth; wire angle, 00°.		
	0	10.50	32.93
	50	5.33	33.22
	100	3.74	33.22
	250	3.23	34.00
	500	3.36	34.20
	PARAGON; September 13, 1955; 0940 GCT; 50°00'N, 175°00'E; wind, 045°, force 5; weather, overcast; sea, moderate; wire angle, 00°.		
	0	9.25	32.99
	50	8.15	33.28u
	100	2.68	33.08u
	250	-	-
	500	-	34.10
	PARAGON; September 15, 1955; 0310 GCT; 47°38'N, 174°49'E; wind, 045°, force 3; weather, rain; sea, slight; wire angle, 00°.		
	0	11.50	33.04
	50	8.77	33.13
	100	3.17	33.09
	250	3.00	33.78
	500	3.17	-

OBSERVED		
Z	T	S
m	°C	‰

PARAGON; September 16, 1955;
0415 GCT; 47°00'N, 175°00'E;
wind, 315°, force 5; weather,
cloudy; sea, moderate; wire
angle, 00°.

0	12.00	33.02
50	5.12	33.56
100	3.96	33.59
250	3.85	33.76
500	3.37	34.10

PARAGON; September 19, 1955;
0415 GCT; 48°00'N, 177°30'W;
wind, 180°, force 5; weather,
fog; sea, very high; wire angle,
00°.

0	10.10	33.04
50	5.42	33.23
100	3.39	33.23
250	3.54	33.82
500	3.43	34.20

OBSERVED		
Z	T	S
m	°C	‰

PARAGON; September 17, 1955;
0915 GCT; 47°00'N, 177°30'E;
wind, 020°, force 3; weather,
partly cloudy; sea, slight; wire
angle, 00°.

0	11.30	33.19
50	6.36	33.67
100	5.50	33.68
250	3.77	33.86
500	3.51	34.23

PARAGON; September 20, 1955;
1800 GCT; 50°00'N, 175°00'W;
wind, 225°, force 5; weather,
cloudy; sea, moderate; wire
angle, 00°.

0	9.50	32.67
50	4.71	33.13
100	3.38	33.27
250	3.62	33.85
500	3.38	34.15

UW

PAR

26 35

36 33

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	$10^{-5} \frac{3}{\text{cm/g}}$	dyn m

UW

MIT-2

MITKOF; October 17, 1955; 1754 GCT; 42°40'N, 124°41'W; wind, missing; weather, fog; sea, calm.

1

0	11.06	32.74	25.03	0	11.06	32.74	25.03	294	0.00
10	9.58	33.25	25.68	10	9.58	33.25	25.68	232	0.03
19	9.05	33.49	25.94	20	9.04	33.49	25.95	207	0.05
49	8.74	33.60	26.09	30	8.95	33.52	25.99	203	0.07
98	8.02	33.92	26.44	50	8.72	33.61	26.10	193	0.11
146	7.56	33.96	26.54	75	8.33	33.80	26.30	174	0.15
				100	8.00	33.93	26.46	160	0.20

MITKOF; October 18, 1955; 1626 GCT; 45°04'N, 124°31'W; wind, missing; weather, overcast; sea, calm.

2

0	10.27	33.04	25.40	0	10.27	33.04	25.40	259	0.00
10	9.42	33.29	25.73	10	9.42	33.29	25.73	227	0.02
20	8.57	33.46	26.00	20	8.57	33.46	26.00	202	0.04
55	8.22	33.84	26.34	30	8.05	33.60	26.19	184	0.06
				50	8.02	33.81	26.36	168	0.10

MITKOF; October 18, 1955; 2150 GCT; 42°59'N, 125°02'W; wind, 135°, force 4; weather, overcast; sea, moderate.

3

0	12.64	32.44	24.50	0	12.64	32.44	24.50	344	0.00
10	12.52	32.48	24.56	10	12.52	32.48	24.56	339	0.03
20	12.09	32.61	24.74	20	12.09	32.61	24.74	322	0.07
50	8.78	33.51	26.01	30	10.70	32.98	25.28	271	0.10
84	8.14	33.76	26.30	50	8.78	33.51	26.01	202	0.14
210	6.96	34.01	26.67	75	8.30	33.70	26.23	181	0.19
421	5.24	34.05a)	26.92	100	7.98	33.79	26.35	170	0.24
861	3.98	34.37	27.31	150	7.51	33.90	26.50	156	0.32
				200	7.05	33.99	26.64	144	0.39
				250	6.58	34.08	26.77	132	0.46
				300	6.14	34.15	26.89	122	0.52
				400	5.38	34.28	27.08	104	0.64
				500	4.78	34.36	27.21	92	0.74
				600	4.35	34.41	27.30	84	0.82
				700	4.08	34.43	27.35	80	0.91
				800	3.97	34.40	27.33	82	0.99

MITKOF; October 22, 1955; 0125 GCT; 46°29'N, 124°26'W; wind, 225°, force 1; weather, overcast; sea, calm.

4

0	12.75	31.32	23.62	0	12.75	31.32	23.62	428	0.00
10	12.88	31.97	24.10	10	12.88	31.97	24.09	383	0.04
20	12.91	32.10	24.19	20	12.91	32.10	24.19	374	0.08
50	7.64	32.78	25.61	30	10.75	32.33	24.76	320	0.11
100	6.91	33.87	26.56	50	7.64	32.78	25.61	240	0.17
				75	6.02	33.33	26.25	178	0.22
				100	6.91	33.87	26.56	150	0.26

MITKOF; October 23, 1955; 1520 GCT; 46°28'N, 124°10'W; wind, 110°, force 1; weather, partly cloudy; sea, calm.

5

0	11.80	29.13	22.10	0	11.80	29.13	22.10	573	0.00
10	11.98	31.34	23.78	10	11.98	31.34	23.78	413	0.05
20	11.86	31.92	24.25	20	11.86	31.92	24.25	369	0.09
30	9.51	32.88	25.40	30	9.51	32.88	25.40	259	0.12

a) This value not used in drawing smooth curve.

CORRIGENDA: NORPAC DATA VOLUME

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; July 16, 1955; 0521 GCT; 21°30'N, 158°23'W; wind, 030°, force 20 kt; weather, partly cloudy; sea, smooth; wire angle, 16°.

0	24.76	34.94		23.39	450	0	24.76	34.94	23.39	450	0.00
10	24.68	34.99		23.45	444	10	24.68	34.99	23.45	445	0.04
24	24.52	34.96		23.48	442	20	24.57	34.97	23.47	443	0.09
48	24.06	35.01		23.65	425	30	24.44	34.97	23.51	440	0.13
95	21.98	35.16		24.36	357	50	24.00	35.02	23.68	425	0.22
195	14.45	34.43		25.67	233	75	23.02	35.11	24.03	392	0.32
293	9.62	34.20		26.41	163	100	21.62	35.14	24.44	353	0.41
388	7.60	34.13		26.67	138	125	19.80	34.99	24.82	318	0.50
484	6.12	34.16		26.90	117	150	17.94	34.82	25.17	286	0.57
583	5.54	34.31		27.09	99	200	14.14	34.41	25.72	234	0.70
778	4.66	34.49		27.33	75	250	11.41	34.26	26.15	194	0.81
969	3.94	34.49		27.41	68	300	9.42	34.19	26.44	166	0.90
1166	3.44	34.52		27.48	61	400	7.37	34.13	26.70	141	1.05
						500	5.99	34.18	26.93	120	1.19
						600	5.45	34.33	27.11	103	1.30
						700	4.98	34.44	27.25	90	1.39
						800	4.57	34.49	27.34	82	1.48
						1000	3.86	34.50	27.42	76	1.64

HUGH M. SMITH; July 16, 1955; 2114 GCT; 23°06'N, 160°08'W; wind, 090°, force 15 kt; weather, partly cloudy; sea, moderate; wire angle, 30°.

0	24.00	34.74	4.87	23.47	443	0	24.00	34.74	23.47	443	0.00
24	23.97	34.72	4.89	23.46	444	10	23.99	34.73	23.46	444	0.04
49	23.70	34.70	4.95	23.52	437	20	23.97	34.72	23.46	444	0.09
55	23.28	34.70	5.05	23.65	426	30	24.03	34.71	23.44	447	0.13
108	21.81	35.30	5.10	24.52	343	50	23.63	34.70	23.54	438	0.22
188	19.38	35.12	4.65	25.03	294	75	22.50	34.90	24.02	393	0.33
274	14.46	34.42	4.57	25.66	234	100	21.91	35.19	24.41	356	0.42
368	10.45	34.29	4.49	26.34	166	125	21.39	35.34	24.66	334	0.51
460	7.84	34.07	3.81	26.59	146	150	20.68	35.32	24.84	317	0.59
551	6.80	34.18	1.75	26.82	124	200	18.73	35.02	25.13	292	0.74
733	5.26	34.31	0.83	27.12	95	250	15.89	34.61	25.49	257	0.88
915	4.50	34.47	0.83	27.33	75	300	13.21	34.36	25.87	222	1.00
1089	3.94	34.52	1.09	27.43	66	400	9.38	34.20	26.45	167	1.19
						500	7.28	34.10	26.69	144	1.35
						600	6.31	34.22	26.92	123	1.48
						700	5.48	34.29	27.08	108	1.59
						800	4.92	34.37	27.21	96	1.70
						1000	4.23	34.49	27.38	80	1.87

HUGH M. SMITH; July 17, 1955; 1131 GCT; 23°46'N, 161°41'W; wind, 090°, force 19 kt; weather, partly cloudy; sea, rough; wire angle, 21°.

0	23.96	35.16	4.67	23.79	412	0	23.96	35.16	23.79	412	0.00
37	23.98	35.17	4.88	23.80	411	10	23.97	35.16	23.80	412	0.04
73	23.78	35.16	-	23.85	406	20	23.97	35.16	23.80	412	0.08
92	22.51	35.23	4.97	24.27	366	30	23.98	35.17	23.80	413	0.12
138	21.30	35.32	4.90	24.67	328	50	23.97	35.16	23.78	414	0.21
303	15.01	34.52	4.54	25.62	238	75	23.65	35.17	23.89	405	0.31
411	10.66	34.20	-	26.23	179	100	22.21	35.26	24.37	360	0.40
604	6.17	34.07	2.21	26.82	124	125	21.52	35.31	24.60	339	
703	5.08	34.31	1.64	27.14	93	150	20.90	35.28	24.76	325	0.58
809	4.72	34.34	0.92	27.21	87	200	19.14	35.10	25.08	296	0.73
989	4.06	34.43	0.96	27.35	74	250	17.22	34.85	25.37	270	0.88
1152	3.64	34.51	1.20	27.46	64	300	15.14	34.54	25.61	248	1.01
						400	11.08	34.22	26.18	194	1.23
						500	8.13	34.06	26.53	160	1.40
						600	6.23	34.07	26.81	133	1.55
						700	5.10	34.30	27.13	102	1.67
						800	4.73	34.34	27.21	96	1.77
						1000	4.03	34.44	27.36	82	1.95

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

5 HUGH M. SMITH; July 18, 1955; 0000, 0057 GCT; 24°32'N, 163°23'W; wind, 090°, force 18 kt; weather, partly cloudy; sea, moderate; wire angle, 10°, 15°.

0	24.87	35.35	4.72	23.67	424	0	24.87	35.35	23.67	424	0.00
31	24.74	35.41	4.80	23.75	416	10	24.83	35.37	23.69	422	0.04
52	22.74	35.34	5.19	24.29	365	20	24.79	35.39	23.72	419	0.08
66	21.76	35.35	5.15	24.57	338	30	24.74	35.41	23.75	417	0.13
100	20.54	35.26	4.99	24.84	312	50	22.95	35.35	24.23	372	0.21
183	17.62	34.90	4.81	25.31	268	75	21.36	35.34	24.67	331	0.29
						100	20.54	35.26	24.84	316	0.37
318	12.56	34.36	4.78	26.00	201	125	19.66	35.16	24.99	302	0.45
430	9.44	34.13	4.20	26.39	165	150	18.78	35.05	25.14	289	0.52
539	7.31	34.11	2.48	26.70	136	200	16.95	34.82	25.41	264	0.66
644	6.14	34.23	1.37	26.95	112	250	15.04	34.61	25.68	239	0.79
853	4.36	34.36	0.81	27.26	82	300	13.20	34.42	25.92	217	0.90
1064	3.68	34.45	1.07	27.40	68	400	10.18	34.17	26.29	182	1.10
1263	3.10	34.51	1.30	27.51	59	500	7.97	34.10	26.59	154	1.27
						600	6.57	34.17	26.85	130	1.41
						700	5.57	34.27	27.05	110	1.53
						800	4.72	34.34	27.20	96	1.63
						1000	3.82	34.43	27.37	80	1.81
						1200	3.28	34.49	27.47	70	1.96

7 HUGH M. SMITH; July 18, 1955; 1524 GCT; 25°20'N, 165°10'W; wind, 100°, force 13 kt; weather, rain; sea, slight; wire angle, 26°.

0	24.95	35.26	4.76	23.57	433	0	24.95	35.26	23.57	433	0.00
22	24.97	35.25	4.82	23.56	434	10	24.96	35.26	23.57	434	0.04
48	24.12	35.37	4.97	23.91	401	20	24.97	35.25	23.56	435	0.09
60	22.78	35.34	5.15	24.27	366	30	24.91	35.29	23.61	430	0.13
109	20.26	35.26	5.03	24.91	305	50	23.91	35.37	23.97	397	0.21
179	17.28	34.92	4.99	25.40	258	75	21.74	35.32	24.55	342	0.31
267	14.00	34.49	4.78	25.81	220	100	20.53	35.28	24.85	314	0.39
358	11.75	34.34	4.85	26.14	188	125	19.53	35.19	25.05	296	0.46
447	9.75	34.13	4.46	26.34	170	150	18.45	35.08	25.24	279	0.54
539	7.26	34.09	2.95	26.69	136	200	16.42	34.80	25.52	254	0.67
722	4.98	34.20	1.16	27.07	100	250	14.57	34.56	25.75	233	0.79
903	4.14	34.38	0.98	27.30	78	300	13.11	34.42	25.94	215	0.90
1097	3.50	34.49	1.20	27.45	64	400	10.82	34.23	26.23	188	1.10
						500	8.29	34.09	26.54	159	1.28
						600	6.22	34.11	26.84	130	1.42
						700	5.12	34.18	27.03	111	1.54
						800	4.52	34.28	27.18	98	1.65
						1000	3.82	34.44	27.38	79	1.82

8 HUGH M. SMITH; July 19, 1955; 0411 GCT; 26°00'N, 166°40'W; wind, 090°, force 13 kt; weather, partly cloudy; sea, slight; wire angle, 03°.

0	25.34	35.28	4.79	23.47	443	0	25.34	35.28	23.47	442	0.00
31	25.18	35.32	4.79	23.55	435	10	25.29	35.29	23.50	440	0.04
55	23.40	35.26	5.18	24.03	389	20	25.24	35.31	23.52	438	0.09
73	22.64	35.30	5.15	24.28	365	30	25.19	35.32	23.55	436	0.13
126	21.00	35.32	4.88	24.76	320	50	23.79	35.27	23.93	401	0.22
189	19.54	35.21	4.71	25.06	291	75	22.57	35.30	24.31	366	0.31
302	15.12	34.61	4.82	25.66	234	100	21.73	35.33	24.56	342	0.40
406	11.60	34.29	4.81	26.13	189	125	21.03	35.32	24.75	325	0.48
507	9.36	34.11	4.37	26.38	165	150	20.45	35.30	24.89	313	0.56
611	6.84	34.07	3.02	26.73	132	200	19.15	35.16	25.12	292	0.71
814	4.58	34.23	1.01	27.13	94	250	17.26	34.90	25.40	267	0.85
1014	3.78	34.36	0.93	27.32	76	300	15.21	34.62	25.65	243	0.98
1219	3.18	34.51	1.23	27.50	59	400	11.78	34.30	26.11	201	1.20
						500	9.50	34.12	26.37	176	1.39
						600	7.09	34.07	26.69	145	1.55
						700	5.54	34.12	26.94	121	1.69
						800	4.66	34.21	27.11	104	1.80
						1000	3.81	34.35	27.31	86	1.99
						1200	3.24	34.50	27.48	70	2.14

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

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HUGH M. SMITH; July 19, 1955; 1555 GCT; 26°21'N, 168°14'W; wind, 100°, force 14 kt; weather, partly cloudy; sea, slight; wire angle, 09°.

10

0	25.28	35.26	4.79	23.47	442	0	25.28	35.26	23.47	442	0.00
30	25.30	35.28	4.93	23.48	442	10	25.29	35.27	23.48	442	0.04
64	24.02	35.26	5.16	23.85	406	20	25.29	35.27	23.48	442	0.09
89	23.02	35.28	5.15	24.16	377	30	25.30	35.28	23.48	443	0.13
138	21.22	35.30	4.78	24.68	327	50	25.30	35.27	23.46	445	0.22
217	18.88	35.08	4.80	25.13	284	75	23.58	35.27	23.99	396	0.33
324	15.67	34.49u	4.77	25.45u	254	100	22.60	35.29	24.29	368	0.42
438	11.59	34.23	4.72	26.09	193	125	21.67	35.30	24.56	343	
546	9.07	34.09	4.35	26.42	162	150	20.84	35.28	24.77	324	0.60
611	7.59	34.00	-	26.57	148	200	19.36	35.15	25.06	298	0.75
870	4.51	34.23	0.82	27.14	93	250	17.92	34.95	25.26	280	0.90
1083	3.59	34.38	1.01	27.36	73	300	16.42	34.74	25.47	261	1.03
1289	3.00	34.49	1.31	27.50	59	400	12.91	34.36	25.93	218	1.27
						500	10.06	34.14	26.29	184	1.48
						600	7.83	34.01	26.55	160	1.65
						700	6.16	34.03	26.79	136	1.80
						800	5.01	34.12	27.00	115	1.93
						1000	3.84	34.33	27.29	88	2.13
						1200	3.25	34.44	27.44	74	2.29

HUGH M. SMITH; July 20, 1955; 0352 GCT; 26°55'N, 169°58'W; wind, 100°, force 14 kt; weather, partly cloudy; sea, slight; wire angle, 16°.

11

0	25.76	35.43	4.73	23.45	444	0	25.76	35.43	23.45	444	0.00
11	25.76	35.41	4.74	23.44	446	10	25.76	35.41	23.44	446	0.04
25	25.54	35.43	4.75	23.52	438	20	25.73	35.43	23.46	444	0.09
33	24.62	35.39	4.77	23.77	414	30	25.02	35.41	23.67	425	0.13
56	20.51a)	35.10	5.43	24.73	323	50	21.37	35.18	24.55	341	0.21
122	16.47	34.76	5.32	25.47	252	75	18.30	34.96	25.18	282	0.29
190	14.64	34.56	4.94	25.73	227	100	16.84	34.82	25.44	258	0.35
260	12.80	34.38	4.90	25.97	204	125	16.37	34.75	25.49	254	0.42
318	11.04b)	34.27	4.73	26.22	181	150	15.59	34.67	25.60	244	0.48
385	9.54c)	34.16	4.60	26.39	164	200	14.39	34.53	25.76	230	0.60
521	6.43d)	34.00	3.38	26.73	132	250	13.07	34.40	25.94	214	0.71
670	4.88	34.05	1.71	26.96	111	300	11.57	34.30	26.15	195	0.81
844	4.05	34.25	0.83	27.21	87	400	9.16	34.14	26.44	168	0.99
						500	6.86	34.02	26.68	144	1.15
						600	5.44	34.00	26.86	127	1.28
						700	4.74	34.08	27.00	114	1.41
						800	4.26	34.20	27.14	100	1.51

HUGH M. SMITH; July 20, 1955; 1558 GCT; 27°13'N, 171°30'W; wind, 110°, force 10 kt; weather, partly cloudy; sea, smooth; wire angle, 10°.

13

0	25.56	35.32	5.08e)	23.43	446	0	25.56	35.32	23.43	446	0.00
10	25.56	35.32	5.32	23.43	446	10	25.56	35.32	23.43	446	0.04
25	25.51	35.28	5.20	23.42	448	20	25.56	35.31	23.41	449	0.09
35	22.46	35.12	4.84	24.20	373	30	24.10	35.20	23.79	413	0.13
99	17.63	34.94	4.73	25.34	265	50	20.08	35.01	24.77	320	0.21
203	15.06	34.60	4.69	25.67	233	75	17.81	34.92	25.28	273	0.28
301	12.76	34.33	-	25.94	207	100	17.59	34.94	25.34	267	0.35
405	10.38	34.33u	-	26.38u	165	125	16.67	34.86	25.50	253	
505	8.42	34.07	-	26.50	154	150	15.95	34.77	25.60	244	0.48
609	6.28	34.00	3.02	26.75	130	200	15.09	34.61	25.67	239	0.60
699	4.97	34.09	1.80	26.98	108	250	13.95	34.45	25.79	228	0.71
814	4.37	34.18	-	27.12	96	300	12.78	34.33	25.94	215	0.83
						400	10.49	34.18	26.26	186	1.03
						500	8.52	34.08	26.50	163	1.20
						600	6.45	34.00	26.73	141	1.36
						700	4.96	34.09	26.98	116	1.49
						800	4.44	34.17	27.10	105	1.60

a) Mean value of 20.45 and 20.57°C.

b) Mean value of 11.00 and 11.09°C.

c) Mean value of 9.48 and 9.60°C.

d) Mean value of 6.38 and 6.48°C.

e) Order of samples in doubt.

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
14 HUGH M. SMITH; July 21, 1955; 0325 GCT; 27°38'N, 173°15'W; wind, 100°, force 10 kt; weather, cloudy; sea, smooth; wire angle, 13°.											
0	25.58	35.41	4.72	23.49	440	0	25.58	35.41	23.49	440	0.00
15	25.55	35.41	4.75	23.50	440	10	25.56	35.41	23.50	440	0.04
24	23.67	35.28	5.19	23.97	394	20	24.59	35.34	23.74	417	0.09
40	20.54	35.21	5.40	24.80	316	30	22.39	35.24	24.31	364	0.13
75	19.11	35.16	5.30	25.13	284	50	19.72	35.19	25.00	299	0.19
173	18.40	35.07	5.00	25.24	274	75	19.11	35.16	25.13	286	0.27
273	16.76	34.83	5.03	25.46	253	100	18.74	35.14	25.21	280	0.34
383	12.85	34.33	4.87	25.92	209	125	18.50	35.12	25.26	276	0.41
489	10.10	34.16	4.66	26.30	173	150	18.39	35.09	25.27	276	0.47
590	7.42	34.02	-	26.61	144	200	18.09	35.02	25.29	276	0.61
788	4.90	34.09	1.59	26.99	108	250	17.26	34.90	25.39	267	0.75
981	3.81	34.29	0.84	27.26	82	300	15.85	34.70	25.57	251	0.88
1178	3.33	34.42	1.84r	27.41	69	400	12.38	34.29	25.99	213	1.11
						500	9.79	34.14	26.34	180	1.31
						600	7.23	34.02	26.63	151	1.47
						700	5.71	34.02	26.84	130	1.61
						800	4.80	34.10	27.01	114	1.73
						1000	3.76	34.30	27.28	88	1.94
16 HUGH M. SMITH; July 21, 1955; 1528, 1555 GCT; 27°57'N, 175°04'W; wind, 110°, force 15 kt; weather, cloudy; sea, smooth; wire angle, 13°, missing.											
0	25.32	34.97	4.79	23.24	464	0	25.32	34.97	23.24	464	0.00
10	25.33	34.96	4.79	23.23	465	10	25.33	34.96	23.23	466	0.05
25	22.00	34.88	5.36	24.15	378	20	23.27	34.91	23.81	411	0.09
35	20.36	34.81	5.59	24.54	340	30	21.13	34.84	24.36	359	0.13
110	16.29	34.72	5.19	25.48	250	50	18.88	34.76	24.89	309	0.20
220	14.38	34.54	4.95	25.77	224	75	17.15	34.72	25.28	272	0.27
332	12.59	34.36	4.91	26.00	202	100	16.35	34.71	25.46	256	0.33
						125	15.88	34.70	25.56	247	0.40
549	7.49	34.00	3.93	26.58	146	150	15.31	34.66	25.66	238	0.46
658	5.84	34.00	2.61	26.80	125	200	14.54	34.58	25.76	230	0.57
869	4.12	34.18	0.94	27.14	93	250	13.92	34.49	25.83	225	0.69
1080	3.42	34.34	0.71	27.34	75	300	13.12	34.41	25.93	216	0.80
1286	2.87	34.45	1.00	27.48	61	400	10.98	34.22	26.19	192	1.00
						500	8.63	34.06	26.46	167	1.18
						600	6.65	33.99	26.69	144	1.34
						700	5.38	34.03	26.88	126	1.47
						800	4.52	34.11	27.05	110	1.59
						1000	3.62	34.28	27.28	88	1.79
						1200	3.10	34.40	27.42	75	1.95
19 HUGH M. SMITH; July 24, 1955; 1612 GCT; 29°02'N, 178°40'W; wind, 160°, force 17 kt; weather, cloudy; sea, smooth; wire angle, 15°.											
0	25.70	35.17	4.74	23.28	461	0	25.70	35.17	23.28	461	0.00
20	25.72	35.35	4.78	23.41	449	10	25.71	35.26	23.34	455	0.05
37	22.36	35.24	5.29	24.32	362	20	25.72	35.35	23.41	450	0.09
50	20.64	35.13	5.31	24.71	325	30	23.86	35.30	23.93	400	0.13
98	18.24	34.85	5.10	25.12	286	50	20.64	35.13	24.71	326	0.21
199	14.76	34.50	4.80	25.66	234	75	18.97	34.97	25.02	297	0.28
394	11.49	34.23	4.71	26.11	192	100	18.15	34.84	25.13	288	0.36
490	9.14	34.04	4.20	26.37	167	125	17.15	34.73	25.29	273	0.43
592	7.34	33.96	3.78	26.57	147	150	16.24	34.64	25.44	260	0.49
790	4.60	34.09	1.67	27.02	105	200	14.74	34.50	25.66	240	0.62
984	3.74	34.20	0.76	27.20	88	250	13.78	34.41	25.80	228	0.74
1185	3.16	34.36	0.78	27.38	71	300	12.91	34.34	25.92	217	0.85
						400	11.34	34.22	26.12	199	1.05
						500	8.94	34.03	26.39	174	1.24
						600	7.20	33.96	26.60	154	1.41
						700	5.67	34.01	26.83	131	1.55
						800	4.53	34.10	27.03	111	1.67
						1000	3.69	34.21	27.21	94	1.87

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; July 25, 1955; 0501, 0702, 0740 GCT; 30°06'N, 179°54'E; wind, 170°, force 11 kt; weather, partly cloudy; sea, smooth; wire angle, 00°, 00°, 00°.

20

0	26.26	35.25	4.66	23.16	472	0	26.26	35.25	23.16	472	0.00
10	26.21	35.26	4.67	23.18	470	10	26.21	35.26	23.18	470	0.05
25	25.65	35.39	4.79	23.46	444	20	26.02	35.36	23.32	458	0.09
40	22.42	35.22	5.31	24.29	365	30	24.60	35.35	23.75	417	0.14
50	21.52	35.14	5.35	24.48	346	50	21.52	35.14	24.48	348	0.21
80	19.02	34.99	5.31	25.03	294	75	19.39	35.01	24.95	304	0.30
124	17.32	34.79	5.16	25.30	269	100	18.06	34.89	25.19	282	0.37
178	16.20	34.64	4.88	25.44	254	125	17.29	34.79	25.30	272	0.44
228	15.24	34.54	4.82	25.58	241	150	16.71	34.71	25.38	265	0.50
303	13.66	34.47	4.83	25.87	214	200	15.78	34.59	25.50	255	0.64
408	11.64	34.35	4.77	26.17	185	250	14.78	34.52	25.67	240	0.76
508	9.50	34.20	4.47	26.43	161	300	13.72	34.47	25.86	223	0.87
612	7.05	34.04	3.96	26.68	137	400	11.79	34.36	26.15	197	1.08
						500	9.68	34.21	26.41	172	1.27
810	4.49	34.13	1.65	27.06	101	600	7.32	34.06	26.65	149	1.43
						700	5.64	34.04	26.86	128	1.57
1012	3.58	34.33	0.64	27.32	77	800	4.57	34.12	27.05	110	1.69
1216	3.10	34.42	0.62	27.44	66	1000	3.60	34.32	27.31	86	1.88
1418	2.72	34.50	0.88	27.53	56	1200	3.13	34.42	27.43	74	2.04
1624	2.42	34.54	1.23	27.59	51	1500	2.60	34.52	27.56	62	2.25
1828	2.12	34.60	1.57	27.66	44	2000	1.96	34.61	27.68	50	2.53
2035	1.93	34.61	1.89	27.69	42	2500	1.67	34.66	27.74	45	2.77
2295	1.75	34.63	2.22	27.72	39						
2595	1.64	34.67	2.49	27.76	35						

HUGH M. SMITH; July 25, 1955; 2248 GCT; 31°49'N, 179°58'E; wind, 220°, force 14 kt; weather, partly cloudy; sea, slight; wire angle, 10°.

22

0	25.96	35.12	4.66	23.16	472	0	25.96	35.12	23.16	472	0.00
12	25.84	35.13	4.65	23.20	468	10	25.86	35.13	23.19	469	0.05
23	22.89	35.05	4.91	24.02	389	20	23.79	35.08	23.78	414	0.09
41	19.66	34.91	5.57	24.80	316	30	21.42	34.99	24.39	356	0.13
66	17.85	34.82	5.62	25.19	279	50	18.80	34.87	24.99	299	0.20
148	15.87	34.70	4.92	25.57	243	75	17.47	34.80	25.27	274	0.27
247	14.01	34.50	4.93	25.82	219	100	16.64	34.76	25.43	259	0.33
349	12.66	34.42	4.87	26.03	199	125	16.10	34.72	25.53	250	0.40
447	10.55	34.29	5.03	26.32	171	150	15.83	34.70	25.57	247	0.46
548	8.48	34.13	4.51	26.54	150	200	14.82	34.59	25.71	234	0.58
749	4.95	34.03	2.55	26.93	113	250	13.97	34.50	25.82	225	0.69
968	3.76	34.25	1.05	27.24	84	300	13.33	34.45	25.92	217	0.80
1194	3.04	34.40	0.65	27.42	66	400	11.61	34.36	26.18	194	1.01
						500	9.44	34.20	26.44	169	1.19
						600	7.42	34.08	26.65	149	1.35
						700	5.67	34.03	26.85	130	1.49
						800	4.53	34.07	27.01	113	1.61
						1000	3.66	34.27	27.26	90	1.81

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
23 HUGH M. SMITH; July 26, 1955; 1144 GCT; 33°41'N, 180°00'; wind, 240°, force 11 kt; weather, cloudy; sea, smooth; wire angle, 11°.											
0	23.38	34.33	5.00	23.34	455	0	23.38	34.33	23.34	455	0.00
10	23.40	34.34	4.98	23.34	455	10	23.40	34.34	23.34	455	0.05
25	22.10	34.35	5.12	23.72	419	20	22.69	34.34	23.55	436	0.09
49	17.44	34.52	5.95	25.06	291	30	21.17	34.38	24.00	393	0.13
98	14.92	34.63	5.12	25.72	228	50	17.34	34.52	25.09	290	0.20
202	13.26	34.48	5.20	25.96	206	75	15.45	34.68	25.64	238	0.27
298	11.57	34.35	5.05	26.18	184	100	14.87	34.63	25.73	230	0.32
400	9.72	34.19	5.20	26.39	165	125	14.26	34.57	25.81		
499	7.11	34.02	4.33	26.65	140	150	13.79	34.53	25.88	217	0.44
602	5.53	34.03	3.27	26.87	120	200	13.27	34.48	25.96	211	0.54
804	4.14	34.19	1.32	27.15	92	250	12.43	34.43	26.07	201	0.65
1003	3.37	34.14	0.64	27.19	89	300	11.54	34.35	26.19	191	0.75
1203	2.88	34.43	0.53	27.46	63	400	9.72	34.19	26.39	173	0.93
						500	7.09	34.02	26.66	147	1.09
						600	5.55	34.03	26.86	127	1.23
						700	4.68	34.11	27.03	111	1.35
						800	4.15	34.19	27.15	100	1.45
						1000	3.38	34.14	27.19	96	1.65
						1200	2.89	34.43	27.46	71	1.82
24 HUGH M. SMITH; July 27, 1955; 0120 GCT; 35°16'N, 179°55'W; wind, 230°, force 21 kt; weather, drizzle; sea, slight; wire angle, 15°.											
0	22.28	34.40	5.05	23.70	420	0	22.28	34.40	23.70	420	0.00
16	20.38	34.36	5.36	24.19	374	10	21.09	34.38	24.01	391	0.04
29	18.32	34.46	5.70	24.80	316	20	19.74	34.38	24.38	356	0.08
48	16.30	34.61	5.87	25.40	259	30	18.19	34.47	24.84	313	0.11
106	14.35	34.52	5.08	25.76	224	50	16.17	34.61	25.43	257	0.17
212	12.68	34.40	5.10	26.01	201	75	14.95	34.62	25.71	232	0.23
317	11.02	34.29	5.27	26.24	179	100	14.39	34.55	25.77	226	0.29
430	9.12	34.15	5.05	26.45	158	125	13.96	34.50	25.82	222	0.34
534	7.08	33.98	4.72	26.63	142	150	13.51	34.47	25.90	216	0.40
643	5.21	33.97	3.33	26.86	120	200	12.81	34.41	25.99	207	0.50
853	4.02	34.15	1.42	27.13	94	250	12.09	34.36	26.10	199	0.60
1064	3.36	34.34	0.78	27.35	74	300	11.29	34.31	26.20	189	0.70
1265	2.86	34.42	0.50	27.46	64	400	9.65	34.19	26.40	172	0.88
						500	7.75	34.03	26.57	156	1.05
						600	5.88	33.96	26.77	136	1.19
						700	4.70	34.00	26.94	119	1.32
						800	4.15	34.09	27.07	107	1.43
						1000	3.52	34.29	27.29	87	1.63
						1200	3.02	34.39	27.42	74	1.79
25 HUGH M. SMITH; July 27, 1955; 1550, 1657 GCT; 37°15'N, 179°50'W; wind, 220°, force 9 kt; weather, cloudy; sea, moderate; wire angle, 05°, 05°.											
0	20.28	34.31	5.19	24.18	374	0	20.28	34.31	24.18	375	0.00
9	20.30	34.34	5.24	24.20	373	10	20.17	34.35	24.24	370	0.04
24	17.84	34.43	5.70	24.89	307	20	18.61	34.41	24.68	327	0.07
53	15.04	34.48	5.77	25.58	241	30	17.10	34.45	25.09	289	0.10
104	13.48	34.46	5.08	25.90	212	50	15.24	34.48	25.54	247	0.16
144	12.74	34.39	5.21	25.99	202	75	14.06	34.48	25.79	223	0.22
270	10.58	34.12	5.36	26.19	184	100	13.51	34.46	25.89	214	0.27
						125	13.06	34.43	25.96	209	
539	4.90	33.95	3.28	26.88	118	150	12.64	34.38	26.00	205	0.38
647	4.34	34.05	2.07	27.02	105	200	11.78	34.32	26.11	195	0.48
857	3.72	34.23	1.10	27.22	86	250	10.92	34.24	26.22	186	0.57
1067	3.14	34.33	0.68	27.36	73	300	9.83	34.17	26.35	174	0.66
						400	7.54	34.01	26.57	153	0.83
						500	5.58	33.94	26.79	133	0.97
						600	4.51	34.00	26.96	116	1.10
						700	4.15	34.10	27.08	106	1.21
						800	3.86	34.19	27.18	97	1.31
						1000	3.33	34.30	27.32	84	1.49

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; July 28, 1955; 0425 GCT; 38°48'N, 179°52'W; wind, 230°, force 9 kt; weather, rain showers; sea, slight; wire angle, 18°.

26

0	20.74	34.28	5.25	24.04	389	0	20.74	34.28	24.04	388	0.00
16	20.46	34.33	5.27	24.15	378	10	20.56	34.31	24.11	382	0.04
29	17.94	34.56	5.74	24.97	300	20	19.74	34.40	24.39	355	0.08
47	16.08	34.57	5.58	25.42	257	30	17.80	34.56	25.01	297	0.11
97	14.64	34.51	5.16	25.69	231	50	15.91	34.57	25.45	255	0.16
196	12.74	34.38	5.36	25.98	203	75	14.92	34.54	25.66	236	0.22
289	11.02	34.27	5.29	26.22	180	100	14.57	34.51	25.70	233	0.28
389	8.94	34.12	4.78	26.46	158	125	14.03	34.47	25.79	225	0.34
484	6.83	33.96	4.30	26.64	140	150	13.54	34.44	25.87	218	0.40
583	5.02	33.91	3.46	26.83	123	200	12.67	34.38	25.99	207	0.50
780	4.00	34.07	1.52	27.07	100	250	11.75	34.32	26.13	196	0.60
971	3.46	34.24	0.97	27.26	82	300	10.80	34.26	26.25	184	0.70
1169	2.97	34.33	0.77	27.38	71	400	8.69	34.10	26.48	163	0.87
						500	6.49	33.94	26.68	144	1.03
						600	4.85	33.92	26.86	126	1.16
						700	4.18	33.98	26.98	114	1.28
						800	3.93	34.09	27.09	105	1.39
						1000	3.39	34.25	27.28	88	1.58

HUGH M. SMITH; July 28, 1955; 1648, 1840 GCT; 40°19'N, 179°54'W; wind, 220°, force 21 kt; weather, cloudy; sea, moderate; wire angle, 10°, 11°.

28

0	18.96	34.06	5.48	24.33	360	0	18.96	34.06	24.33	360	0.00
10	18.98	34.06	5.46	24.33	360	10	18.98	34.06	24.33	361	0.04
25	18.30	34.12	5.61	24.54	340	20	18.83	34.08	24.38	356	0.07
35	15.26	34.28	6.18	25.38	260	30	16.85	34.20	24.96	302	0.10
69	12.60	34.36	5.44	26.00	202	50	13.26	34.37	25.87	215	0.16
109	11.51	34.31	5.29	26.16	186	75	12.36	34.36	26.04	200	0.21
163	10.55	34.22	5.64	26.27	176	100	11.65	34.33	26.15	189	0.26
218	9.48	34.12	5.75	26.37	166	125	11.20	34.28	26.20	185	0.30
271	8.76	34.07	5.00	26.45	159	150	10.76	34.24	26.25	181	0.35
328	7.52	33.96	5.08	26.55	150	200	9.82	34.15	26.34	173	0.44
441	5.46	33.89	3.92	26.76	129	250	9.05	34.09	26.42	167	0.52
547	4.46	33.96	2.55	26.93	113	300	8.15	34.02	26.50	159	0.60
658	4.14	34.09	1.69	27.07	100	400	6.12	33.90	26.69	142	0.76
						500	4.81	33.92	26.86	125	0.89
755	3.84	34.22	1.27	27.20	87	600	4.26	34.02	27.00	112	1.01
864	3.52	34.31	0.91	27.31	78	700	4.01	34.15	27.13	100	1.11
973	3.22	34.33	0.68	27.35	74	800	3.71	34.26	27.25	89	1.21
1081	2.98	34.36	0.85	27.40	69	1000	3.15	34.34	27.36	79	1.38
1301	2.66	34.45	0.64	27.50	60	1200	2.79	34.41	27.45	71	1.53
1519	2.36	34.51	0.84	27.57	53	1500	2.38	34.50	27.57	61	1.72
1738	2.14	34.58	1.07	27.65	46	2000	1.95	34.60	27.68	51	2.00
1958	1.98	34.60	1.37	27.67	43						
2180	1.84	34.61	1.67	27.69	41						

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
29 HUGH M. SMITH; July 29, 1955; 0611 GCT; 41°50'N, 179°54'W; wind, 200°, force 24 kt; weather, fog; sea, rough; wire angle, 40°.											
0	16.55	33.95	5.68	24.83	312	0	16.55	33.95	24.83	312	0.00
16	16.36	33.97	5.82	24.89	307	10	16.43	33.96	24.87	309	0.03
26	11.72	34.02	6.71	25.90	211	20	14.46	33.99	25.33	266	0.06
36	11.24	34.04	6.50	26.00	201	30	11.28	34.03	25.99	203	0.08
84	8.47	33.89	6.35	26.35	168	50	10.38	34.01	26.14	190	0.12
165	7.98	33.93	6.18	26.46	158	75	8.95	33.93	26.31	174	0.17
249	6.70	33.86	5.42	26.58	146	100	8.19	33.89	26.39	166	0.21
338	5.65	33.88	4.36	26.73	132	125	7.94	33.89	26.44	162	0.25
423	4.78	33.88	3.62	26.83	122	150	7.90	33.91	26.46	161	0.29
510	4.28	33.97	2.62	26.96	111	200	7.48	33.90	26.51	156	0.37
682	3.88	34.16	1.28	27.15	92	250	6.69	33.86	26.59	150	0.45
855	3.40	34.25	0.87	27.27	81	300	6.07	33.87	26.67	142	0.52
1024	3.05	34.34	0.72	27.38	71	400	4.99	33.88	26.81	129	0.66
						500	4.32	33.96	26.95	116	0.78
						600	4.03	34.08	27.07	105	0.89
						700	3.83	34.17	27.17	97	0.99
						800	3.55	34.23	27.24	90	1.08
						1000	3.10	34.33	27.36	79	1.25
31 HUGH M. SMITH; July 29, 1955; 1845 GCT; 43°18'N, 179°56'W; wind, 180°, force 21 kt; weather, fog; sea, moderate; wire angle, 05°.											
0	15.59	33.93	5.93	25.04	293	0	15.59	33.93	25.04	293	0.00
10	15.60	33.93	5.88	25.03	293	10	15.60	33.93	25.03	294	0.03
20	14.54	33.98	6.21	25.30	268	20	14.54	33.98	25.30	268	0.06
30	12.06	34.14	6.38	25.93	208	30	12.06	34.14	25.93	209	0.08
109	9.52	34.13	5.97	26.37	166	50	10.87	34.18	26.17	186	0.12
219	7.87	33.98	5.78	26.51	153	75	10.13	34.17	26.29	175	0.17
327	6.05	33.93	4.68	26.72	133	100	9.67	34.14	26.36	170	0.21
441	4.84	33.95	3.24	26.88	118	125	9.22	34.11	26.41	165	
550	4.35	34.05	2.08	27.02	105	150	8.79	34.08	26.45	162	0.29
658	3.98	34.16	1.45	27.14	93	200	8.08	34.01	26.50	157	0.37
873	3.32	34.31	0.87	27.33	76	250	7.32	33.96	26.57	151	0.45
1086	2.96	34.38	0.69	27.42	67	300	6.48	33.94	26.67	142	0.52
1291	2.65	34.47	0.74	27.52	58	400	5.19	33.93	26.83	127	0.66
						500	4.53	34.00	26.96	116	0.78
						600	4.17	34.10	27.08	105	0.89
						700	3.84	34.20	27.19	95	0.99
						800	3.52	34.27	27.27	87	1.08
						1000	3.09	34.36	27.38	77	1.25
						1200	2.79	34.43	27.47	69	1.40
32 HUGH M. SMITH; July 30, 1955; 0613 GCT; 44°56'N, 179°49'W; wind, 210°, force 9 kt; weather, cloudy; sea, moderate; wire angle, 17°.											
0	13.05	33.24	6.19	25.04	292	0	13.05	33.24	25.04	293	0.00
14	12.52	33.30	6.30	25.19	278	10	12.67	33.28	25.15	283	0.03
26	8.88	33.44	6.97	25.94	208	20	10.72	33.37	25.58	242	0.06
40	7.90	33.48	6.99	26.12	191	30	8.41	33.46	26.02	200	0.08
102	5.97	33.49	6.90	26.39	165	50	7.40	33.49	26.19	184	0.12
199	6.16	33.75	6.09	26.57	148	75	6.47	33.50	26.33	172	0.16
295	4.90	33.89	4.13	26.83	123	100	5.99	33.49	26.38	166	0.20
396	4.22	33.95	2.75	26.95	112	125	5.90	33.54	26.44	162	0.24
491	4.02	34.07	1.80	27.07	100	150	5.91	33.61	26.49	157	0.28
592	3.80	34.20	1.30	27.19	88	200	6.15	33.75	26.57	150	0.36
790	3.38	34.29	0.82	27.31	78	250	5.54	33.84	26.71	137	0.43
985	2.97	34.42	0.73	27.45	64	300	4.85	33.89	26.84	125	0.50
1183	2.66	34.47	0.77	27.51	58	400	4.21	33.95	26.96	114	0.62
						500	4.00	34.08	27.08	104	0.73
						600	3.78	34.20	27.20	93	0.82
						700	3.57	34.26	27.26	87	0.91
						800	3.36	34.30	27.31	83	1.00
						1000	2.95	34.42	27.45	70	1.15

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; July 30, 1955; 1753 GCT; 46°08'N, 179°55'W; wind, 300°, force 8 kt; weather, intermittent drizzle; sea, slight; wire angle, 25°.

34

0	11.26	32.99	5.74	25.19	279	0	11.26	32.99	25.19	279	0.00
23	8.18	33.26	7.06	25.90	211	10	9.92	33.11	25.51	248	0.03
40	6.58	33.30	6.95	26.16	187	20	8.58	33.22	25.82	220	0.05
54	6.26	33.30	7.04	26.20	183	30	7.41	33.29	26.04	198	0.07
93	4.81	33.39	7.17	26.44	160	50	6.31	33.30	26.19	184	0.11
195	4.42	33.66	6.28	26.70	135	75	5.49	33.34	26.33	171	0.15
292	4.01	33.82	3.74	26.87	119	100	4.71	33.41	26.47	158	0.19
396	3.96	34.00	2.42	27.02	105	125	4.42	33.48	26.55	150	0.23
492	3.86	34.09	1.62	27.10	97	150	4.29	33.54	26.62	144	0.27
590	3.64	34.22	1.15	27.22	86	200	4.40	33.67	26.71	136	0.34
784	3.30	34.31	0.85	27.33	76	250	4.17	33.76	26.80	128	0.41
981	2.88	34.40	0.71	27.44	65	300	4.00	33.84	26.88	120	0.47
1173	2.61	34.47	0.80	27.52	58	400	3.96	34.00	27.02	108	0.58
						500	3.84	34.10	27.11	100	0.69
						600	3.62	34.23	27.23	89	0.78
						700	3.44	34.28	27.30	84	0.87
						800	3.26	34.32	27.34	80	0.95
						1000	2.85	34.41	27.45	70	1.10

HUGH M. SMITH; July 31, 1955; 0511 GCT; 47°41'N, 179°39'W; wind, 360°, force 6 kt; weather, cloudy; sea, smooth; wire angle, 03°.

35

0	10.48	32.90	6.98	25.25	273	0	10.48	32.90	25.25	272	0.00
8	9.88	32.90	7.04	25.36	263	10	9.58	32.93	25.43	256	0.03
18	8.24	33.09	7.33	25.76	224	20	7.95	33.11	25.82	219	0.05
38	5.83	33.16	7.41	26.14	188	30	6.65	33.16	26.04	198	0.07
63	4.50	33.20	7.34	26.33	171	50	5.04	33.18	26.25	178	0.11
112	3.70	33.28	7.20	26.47	157	75	4.17	33.21	26.37	167	0.15
207	3.86	33.77	4.16	26.85	122	100	3.76	33.26	26.45	160	0.19
304	3.66	33.90	2.64	26.97	110	125	3.67	33.34	26.53	152	0.23
410	3.76	34.05	1.74	27.08	99	150	3.65	33.47	26.63	143	0.27
511	3.64	34.13	1.23	27.15	92	200	3.82	33.73	26.82	125	0.34
714	3.17	34.27	0.80	27.31	78	250	3.78	33.85	26.92	116	0.40
969	2.80	34.40	0.77	27.45	64	300	3.67	33.90	26.97	112	0.45
1224	2.47	34.46	0.84	27.52	57	400	3.75	34.04	27.07	103	0.56
						500	3.66	34.12	27.15	97	0.66
						600	3.44	34.20	27.22	90	0.75
						700	3.20	34.26	27.30	83	0.84
						800	3.03	34.32	27.36	78	0.92
						1000	2.76	34.41	27.46	70	1.07
						1200	2.50	34.45	27.52	64	1.20

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δT	Z	T	S	σ_t	δT	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

37

HUGH M. SMITH; July 31, 1955; 2005, 2200 GCT; 49°34'N, 179°58'W; wind, 200°, force 8 kt; weather, cloudy; sea, calm; wire angle, 00°, 21°.

0	9.28	32.83	7.42	25.40	259	0	9.28	32.83	25.40	259	0.00
5	8.45	32.83	7.46	25.53	247	10	7.90	32.83	25.61	239	0.02
10	7.90	32.83	7.45	25.61	239	20	7.72	32.81	25.62	238	0.05
29	7.46	32.83	7.30	25.67	233	30	7.32	32.84	25.70	231	0.07
36	6.44	32.91	6.98	25.87	214	50	5.14	33.05	26.14	189	0.11
49	5.24	33.04	6.67	26.12	190	75	4.17	33.27	26.42	163	0.16
58	4.44	33.15	6.14	26.29	174	100	4.00	33.34	26.49	156	0.20
73	4.19	33.26	5.58	26.41	163	125	3.95	33.36	26.51	154	0.24
122	3.96	33.36	5.01	26.51	153	150	3.90	33.41	26.55	150	0.27
196	3.88	33.49	4.40	26.62	143	200	3.88	33.50	26.63	143	0.35
295	3.95	33.77	2.44	26.84	122	250	3.93	33.64	26.74	134	0.42
394	3.62	33.96	1.39	27.02	105	300	3.93	33.78	26.85	124	0.48
493	3.65	34.11	0.77	27.14	94	400	3.62	33.97	27.03	107	0.60
						500	3.64	34.12	27.14	97	0.70
569	3.50	34.16	0.77	27.19	89	600	3.44	34.18	27.21	91	0.79
766	3.17	34.29	0.56	27.33	76	700	3.27	34.25	27.28	85	0.88
953	2.90	34.36	0.55	27.41	68	800	3.12	34.30	27.34	80	0.96
1146	2.60	34.42	0.79	27.48	61	1000	2.83	34.38	27.42	72	1.12
1348	2.34	34.48	0.83	27.55	54	1200	2.53	34.44	27.50	66	1.25
1546	2.14	34.52	1.06	27.60	50	1500	2.18	34.51	27.59	58	1.44
1747	2.02	34.56	1.59	27.64	46	2000	1.88	34.59	27.67	51	1.71
1957	1.90	34.58	1.28r	27.66	44						
2168	1.80	34.61	1.99	27.70	41						

38

HUGH M. SMITH; August 1, 1955; 1148 GCT; 49°30'N, 177°19'W; wind, 060°, force 7 kt; weather, cloudy; sea, calm; wire angle, 03°.

0	9.53	32.69	6.92	25.25	273	0	9.53	32.69	25.25	273	0.00
15a)	7.97	32.77	7.09	25.55	244	10	8.49	32.74	25.45	254	0.03
30	6.50	32.92	6.98	25.87	214	20	7.47	32.82	25.66	234	0.05
62	3.88	33.13	6.31	26.33	170	30	6.50	32.92	25.87	214	0.07
112	3.44	33.40	4.59	26.59	145	50	4.71	33.06	26.19	184	0.11
206	3.62	33.86	1.88	26.94	112	75	3.53	33.20	26.43	162	0.16
304	3.38	33.96	1.41	27.04	103	100	3.33	33.34	26.55	150	0.20
408	3.36	34.06	1.00	27.12	95	125	3.44	33.48	26.65	140	0.23
510	3.34	34.18	0.80	27.22	86	150	3.46	33.61	26.76	131	0.27
613	3.16	34.25	0.66	27.29	79	200	3.59	33.84	26.92	115	0.33
820	2.88	34.34	0.54	27.39	70	250	3.53	33.93	27.00	108	0.38
1018	2.61	34.42	0.65	27.48	62	300	3.39	33.96	27.04	105	0.44
1224	2.37	34.47	0.83	27.54	56	400	3.36	34.05	27.12	98	0.54
						500	3.35	34.17	27.21	90	0.63
						600	3.19	34.24	27.29	84	0.72
						700	3.04	34.29	27.34	79	0.80
						800	2.90	34.33	27.38	75	0.88
						1000	2.63	34.41	27.47	68	1.02
						1200	2.40	34.46	27.53	62	1.15

a) Separate cast, this level only (1235 GCT; wire angle, 00°).

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 1, 1955; 2322 GCT; 49°30'N, 175°04'W; wind, 200°, force 13 kt; weather, fog; sea, smooth; wire angle, 18°.

39

0	9.66	32.68	7.03	25.22	276	0	9.66	32.68	25.22	276	0.00
24	7.78	32.94	7.09	25.71	229	10	8.88	32.79	25.43	256	0.03
37	6.56	32.94	7.05	25.88	213	20	8.09	32.90	25.63	237	0.05
61	5.24	32.99	7.18	26.08	194	30	7.20	32.94	25.80	221	0.07
113	3.55	33.12	7.25	26.36	168	50	5.75	32.96	26.00	202	0.12
194	3.26	33.69	4.39	26.84	122	75	4.65	33.01	26.16	187	0.17
289	3.31	33.87	2.47	26.98	109	100	3.84	33.08	26.30	174	0.21
388	3.60	34.00	1.56	27.05	102	125	3.41	33.20	26.44	161	0.25
484	3.56	34.10	1.06	27.14	94	150	3.22	33.38	26.59	146	0.29
583	3.41	34.19	0.88	27.22	86	200	3.25	33.71	26.86	122	0.36
781	3.08	34.28	0.72	27.33	76	250	3.25	33.83	26.95	113	0.42
973	2.82	34.35	0.82	27.40	68	300	3.34	33.89	26.99	110	0.47
1174	2.57	34.42	0.75	27.48	61	400	3.61	34.01	27.06	104	0.58
						500	3.54	34.12	27.15	96	0.68
						600	3.38	34.20	27.23	89	0.77
						700	3.21	34.25	27.29	84	0.86
						800	3.05	34.29	27.33	80	0.94
						1000	2.79	34.36	27.42	73	1.09

HUGH M. SMITH; August 2, 1955; 1146, 1322 GCT; 49°25'N, 172°35'W; wind, 240°, force 16 kt; weather, cloudy; sea, moderate; wire angle, 11°, 27°.

40

0	9.70	32.57	6.94	25.13	284	0	9.70	32.57	25.13	284	0.00
10	9.46	32.61	6.93	25.20	278	10	9.46	32.61	25.20	278	0.03
19	8.20	32.69	7.05	25.45	254	20	8.08	32.70	25.48	252	0.05
39	6.31	32.84	7.11	25.83	218	30	7.05	32.78	25.69	232	0.08
80	4.22	33.05	7.17	26.24	179	50	5.59	32.91	25.97	205	0.12
100	3.50	33.13	7.19	26.37	166	75	4.39	33.03	26.20	183	0.17
134	3.16	33.19	7.04	26.45	159	100	3.50	33.13	26.37	167	0.21
172	3.34	33.44	5.36	26.63	143	125	3.17	33.17	26.43	161	0.26
211	3.36	33.70	3.54	26.84	122	150	3.21	33.28	26.52	153	0.29
299	3.50	33.95	1.79	27.02	104	200	3.36	33.63	26.78	129	0.37
402	3.56	34.08	1.13	27.12	95	250	3.42	33.85	26.95	113	0.43
502	3.47	34.14	0.97	27.18	89	300	3.50	33.95	27.02	106	0.48
606	3.31	34.25	0.83	27.28	80	400	3.56	34.08	27.12	98	0.58
						500	3.47	34.14	27.18	94	0.68
747	3.10	34.31	0.61	27.35	74	600	3.32	34.24	27.27	85	0.77
838	2.96	34.33	0.65	27.38	71	700	3.17	34.30	27.33	80	0.85
932	2.84	34.36	0.65	27.41	68	800	3.02	34.32	27.36	77	0.93
1122	2.58	34.43	0.70	27.49	60	1000	2.75	34.38	27.44	71	1.08
1311	2.36	34.49	0.82	27.56	54	1200	2.48	34.46	27.52	64	1.21
1511	2.17	34.52	1.02	27.60	50	1500	2.18	34.52	27.59	57	1.39
1705	2.04	34.57	1.25	27.65	45	2000	1.88	34.61	27.69	49	1.66
1913	1.92	34.60	1.56	27.68	43						
2163	1.80	34.63	1.91	27.71	39						

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

41 HUGH M. SMITH; August 3, 1955; 0155 GCT; 48°03'N, 172°34'W; wind, 220°, force 21 kt; weather, fog; sea, moderate; wire angle, 32°.

0	10.86	32.86	7.18	25.16	282	0	10.86	32.86	25.16	282	0.00
16	10.83	32.85	6.92	25.15	282	10	10.84	32.85	25.16	282	0.03
24	10.24	32.88	6.88	25.28	270	20	10.55	32.86	25.21	277	0.06
33	9.69	32.97	6.80	25.44	255	30	9.86	32.94	25.39	260	0.08
47	9.20	32.95	6.73	25.50	249	50	8.84	32.96	25.57	243	0.13
72	5.70	33.13	6.71	26.14	189	75	5.50	33.15	26.17	186	0.19
179	4.20	33.53	5.87	26.62	143	100	4.84	33.27	26.34	170	0.23
320	3.86	33.91	2.41	26.96	111	125	4.46	33.37	26.47		
407	3.83	34.04	1.63	27.06	101	150	4.25	33.46	26.55	151	0.31
553	3.65	34.19	1.00	27.20	88	200	4.08	33.60	26.69	138	0.38
739	3.24	34.26	0.74	27.29	79	250	3.89	33.74	26.82	126	0.45
927	2.89	34.34	0.67	27.39	70	300	3.84	33.87	26.92	116	0.51
1115	2.64	34.45	0.72	27.50	60	400	3.83	34.03	27.06	105	0.62
						500	3.73	34.14	27.16	96	0.72
						600	3.55	34.21	27.23	90	0.82
						700	3.33	34.25	27.28	85	0.91
						800	3.12	34.28	27.33	81	0.99
						1000	2.79	34.38	27.43	72	1.14

43 HUGH M. SMITH; August 3, 1955; 1436 GCT; 46°31'N, 172°34'W; wind, 290°, force 18 kt; weather, cloudy; sea, slight; wire angle, 26°.

0	12.72	33.03	6.40	24.94	302	0	12.72	33.03	24.94	302	0.00
12	12.48	33.03	6.42	24.99	298	10	12.52	33.03	24.98	299	0.03
24	10.03	33.13	6.79	25.51	248	20	11.00	33.09	25.31	268	0.06
40	6.04	33.33	7.06	26.25	178	30	8.37	33.21	25.84	218	0.08
56	5.63	33.33	7.01	26.30	173	50	5.57	33.34	26.32	172	0.12
153	5.25	33.73	5.67	26.66	139	75	5.41	33.40	26.38	166	0.16
190	5.12	33.77	5.37	26.71	134	100	5.23	33.50	26.48	157	0.20
287	4.50	33.82	3.86	26.82	124	125	5.17	33.60	26.57	149	0.24
350	4.15	33.90	2.78	26.92	115	150	5.23	33.72	26.65	141	0.28
421	3.92	33.96	2.07	26.99	108	200	5.06	33.78	26.72	135	0.35
560	3.80	34.16	1.25	27.16	92	250	4.75	33.80	26.77	130	0.41
697	3.46	34.24	0.90	27.26	82	300	4.42	33.84	26.84	125	0.48
848	3.11	34.31	0.85	27.35	74	400	3.97	33.94	26.97	113	0.60
						500	3.84	34.07	27.09	102	0.70
						600	3.71	34.19	27.19	93	0.80
						700	3.45	34.24	27.26	87	0.89
						800	3.22	34.29	27.32	82	0.98

44 HUGH M. SMITH; August 4, 1955; 0457 GCT; 45°05'N, 172°30'W; wind, 260°, force 13 kt; weather, cloudy; sea, slight; wire angle, 13°.

0	16.23	33.19	6.85	24.33	361	0	16.23	33.19	24.33	361	0.00
10	16.04	33.21	6.94	24.38	355	10	16.04	33.21	24.38	356	0.04
19	13.94	33.22	7.00	24.85	311	20	13.48	33.24	24.95	302	0.07
29	9.23	33.44	6.11	25.88	213	30	8.99	33.45	25.92	209	0.09
58	6.64	33.37	5.94	26.21	182	50	6.44	33.44	26.28	175	0.13
107	6.51	33.48	5.91	26.31	172	75	6.29	33.39	26.27	177	0.18
214	6.60	33.82	5.88	26.57	148	100	6.36	33.46	26.31	174	0.22
319	5.02	33.87	4.04	26.80	126	125	6.57	33.54	26.35	170	0.26
431	4.34	33.98	2.52	26.96	110	150	6.62	33.63	26.41	165	0.31
645	3.80	34.18	1.15	27.18	90	200	6.62	33.78	26.53	154	0.38
855	3.28	34.31	0.75	27.33	75	250	6.10	33.85	26.65	143	0.46
1066	2.86	34.41	0.62	27.45	64	300	5.33	33.87	26.76	132	0.53
1267	2.58	34.46	0.70	27.51	58	400	4.46	33.95	26.92	118	0.65
						500	4.11	34.05	27.04	107	0.77
						600	3.87	34.14	27.14	98	0.87
						700	3.66	34.22	27.22	91	0.96
						800	3.41	34.28	27.29	85	1.05
						1000	2.98	34.38	27.42	74	1.21
						1200	2.67	34.44	27.49	67	1.35

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 4, 1955; 1712 GCT; 43°20'N, 172°19'W; wind, 320°, force 15 kt; weather, cloudy; sea, slight; wire angle, 42°.

46

0	17.60	33.60	5.83	24.32	362	0	17.60	33.60	24.32	362	0.00
8	17.54	33.61	5.86	24.34	360	10	17.20	33.62	24.43	352	0.04
22	14.20	33.67	6.30	25.14	283	20	14.82	33.66	25.00	297	0.07
45	7.60	33.59	7.25	26.25	178	30	11.51	33.63	25.64	237	0.09
66	8.88	33.93	6.68	26.32	171	50	7.66	33.67	26.30	174	0.14
100	7.70	33.80	6.58	26.40	164	75	8.73	33.93	26.34	170	0.18
164	7.15	33.82	6.43	26.49	155	100	7.70	33.80	26.40	166	0.22
211	6.92	33.87	5.79	26.56	149	125	7.34	33.78	26.44	162	0.26
278	5.65	33.87	5.23	26.73	133	150	7.17	33.80	26.47	159	0.30
415	4.67	33.96	3.15	26.91	116	200	6.99	33.86	26.54	153	0.38
560	4.13	34.11	1.74	27.09	98	250	6.22	33.87	26.66	142	0.45
710	3.64	34.21	0.94	27.22	86	300	5.40	33.88	26.76	133	0.52
883	3.26	34.34	0.83	27.36	73	400	4.71	33.95	26.89	121	0.65
						500	4.32	34.05	27.02	110	0.76
						600	3.99	34.14	27.12	100	0.87
						700	3.67	34.20	27.21	92	0.97
						800	3.44	34.28	27.29	85	1.05

HUGH M. SMITH; August 5, 1955; 0523 GCT; 41°39'N, 172°16'W; wind, 020°, force 16 kt; weather, cloudy; sea, slight; wire angle, 22°.

47

0	21.11	34.02	5.94	23.74	417	0	21.11	34.02	23.74	417	0.00
9	19.60	33.96	6.37	24.09	383	10	19.44	33.96	24.14	379	0.04
24	16.49	34.07	6.39	24.94	302	20	17.46	34.02	24.68	328	0.08
36	12.40	34.21	6.08	25.92	209	30	14.33	34.15	25.48	252	0.10
50	11.66	34.17	5.54	26.03	199	50	11.66	34.17	26.03	200	0.15
91	10.52	34.20	5.35	26.26	177	75	10.85	34.18	26.18	186	0.20
146	9.66	34.14	5.86	26.36	168	100	10.35	34.20	26.28	177	0.24
242	8.13	33.98	5.94	26.47	157	125	9.94	34.17	26.33	172	0.29
409	5.92	33.96	4.14	26.76	129	150	9.59	34.13	26.36	170	0.33
611	4.43	34.05	2.00	27.01	106	200	8.79	34.05	26.43	165	0.41
811	3.69	34.20	0.96	27.20	87	250	8.01	33.97	26.49	159	0.49
1012	3.16	34.33	0.62	27.36	73	300	7.28	33.95	26.57	152	0.57
1203	2.81	34.38	0.55	27.43	66	400	6.02	33.96	26.75	136	0.72
						500	5.12	33.99	26.88	123	0.85
						600	4.48	34.04	27.00	113	0.96
						700	4.04	34.11	27.10	103	1.07
						800	3.72	34.19	27.19	95	1.17
						1000	3.19	34.32	27.35	80	1.35
						1200	2.82	34.38	27.43	73	1.50

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

49

HUGH M. SMITH; August 5, 1955; 1526, 1713 GCT; 40°23'N, 172°33'W; wind, 050°, force 16 kt; weather, cloudy; sea, slight; wire angle, 08°, 14°.

0	22.20	34.13	5.82	23.52	438	0	22.20	34.13	23.52	438	0.00
15	22.20	34.13	6.54	23.52	438	10	22.20	34.13	23.52	438	0.04
25	19.41a)	34.11	6.68	24.26	368	20	21.23	34.10	23.77	415	0.09
31	15.54	34.25	5.73	25.29	269	30	16.18	34.22	25.13	285	0.12
45	13.60	34.33	5.14	25.77	223	50	13.30	34.34	25.85	218	0.17
61	12.93	34.36	5.15	25.93	208	75	12.43	34.34	26.01	202	0.22
101	11.68	34.27	5.59	26.10	192	100	11.70	34.27	26.10	194	0.27
151	10.90	34.21	5.53	26.20	183	125	11.23	34.23	26.16	190	0.32
203	10.38	34.20	5.41	26.28	175	150	10.91	34.21	26.20	186	0.37
306	9.02	34.09	5.41	26.42	161	200	10.41	34.20	26.28	180	0.46
431	6.75	33.96	4.27	26.66	139	250	9.82	34.16	26.35	174	0.55
536	5.34	33.95	3.16	26.83	123	300	9.11	34.10	26.41	168	0.63
640	4.61	34.02	2.11	26.96	110	400	7.31	33.99	26.60	151	0.79
						500	5.76	33.94	26.77	135	0.94
723	4.19	34.13	1.61	27.10	97	600	4.84	33.98	26.91	121	1.06
830	3.80	34.21	1.01	27.20	88	700	4.29	34.10	27.06	107	1.18
1027	3.22	34.34	0.64	27.36	73	800	3.90	34.19	27.18	97	1.28
1233	2.79	34.37	0.51	27.42	67	1000	3.29	34.33	27.34	81	1.46
1432	2.52	34.46	0.66	27.52	58	1200	2.85	34.37	27.42	75	1.61
1651	2.24	34.50	0.76	27.57	52	1500	2.43	34.48	27.54	64	1.82
1849	2.06	34.55	1.00	27.63	48	2000	1.96	34.56	27.65	54	2.11
2069	1.92	34.57	1.37	27.66	45						
2266	1.83	34.63	1.68	27.71	39						

50

HUGH M. SMITH; August 6, 1955; 0350 GCT; 39°02'N, 172°30'W; wind, 070°, force 18 kt; weather, intermittent drizzle; sea, slight; wire angle, 05°.

0	21.71	34.14	5.17	23.67	424	0	21.71	34.14	23.67	424	0.00
15	21.62	34.12	5.18	23.68	423	10	21.65	34.13	23.67	424	0.04
30	14.92	34.30	6.75	25.47	252	20	19.34	34.18	24.33	362	0.08
37	14.35	34.33	6.73	25.61	238	30	14.92	34.30	25.47	253	0.11
47	13.49	34.31	6.45	25.78	223	50	13.30	34.31	25.82	220	0.16
80	11.94	34.29	5.62	26.07	195	75	12.10	34.29	26.04	200	0.21
194	10.05	34.17	5.68	26.32	171	100	11.42	34.27	26.15	189	0.26
329	7.75	34.00	5.03	26.55	150	125	10.88	34.25	26.23	182	0.31
488	5.55	34.00	3.47	26.84	122	150	10.46	34.22	26.29	178	0.35
663	4.36	34.11	1.76	27.06	101	200	9.94	34.16	26.33	175	0.44
878	3.62	34.27	0.88	27.27	82	250	9.08	34.09	26.42	167	0.53
1094	3.06	34.39	0.60	27.42	67	300	8.23	34.03	26.50	159	0.61
1299	2.73	34.45	0.65	27.49	60	400	6.67	33.98	26.68	142	0.76
						500	5.44	34.00	26.86	126	0.89
						600	4.68	34.06	26.99	114	1.01
						700	4.20	34.14	27.10	103	1.12
						800	3.83	34.21	27.20	94	1.22
						1000	3.28	34.34	27.36	80	1.39
						1200	2.89	34.42	27.46	71	1.54

a) Mean value of 19.34 and 19.48°C.

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 6, 1955; 1613 GCT; 37°23'N, 172°29'W; wind, 050°, force 18 kt; weather, drizzle; sea, rough; wire angle, 20°.

52

0	22.26	34.29	5.11	23.63	428	0	22.26	34.29	23.63	428	0.00
24	17.56	34.48	6.06	25.00	292	10	20.30	34.37	24.22	371	0.04
36	15.81	34.54	6.34	25.46	253	20	18.34	34.45	24.78	318	0.07
59	14.64	34.51	6.01	25.69	231	30	16.61	34.52	25.25	274	0.10
102	13.52	34.49	5.32	25.91	210	50	14.90	34.53	25.65	236	0.15
203	12.10	34.40	5.46	26.12	190	75	14.12	34.50	25.79	223	0.21
302	10.52	34.25	5.33	26.30	173	100	13.55	34.49	25.91	213	0.27
411	8.89	34.11	4.95	26.46	158	125	13.13	34.48	25.98	207	0.32
511	6.80	33.99	4.40	26.67	138	150	12.75	34.46	26.04	202	0.37
613	5.19	33.98	3.13	26.87	119	200	12.13	34.40	26.12	195	0.47
813	4.09	34.13	1.35	27.11	96	250	11.36	34.33	26.21	188	0.57
1012	3.40	34.31	0.84	27.32	76	300	10.55	34.25	26.29	180	0.66
1203	2.92	34.39	0.62	27.43	66	400	9.07	34.12	26.44	167	0.83
						500	7.03	34.00	26.65	147	0.99
						600	5.36	33.98	26.84	128	1.13
						700	4.52	34.03	26.98	115	1.25
						800	4.11	34.12	27.09	105	1.36
						1000	3.43	34.30	27.31	85	1.55
						1200	2.93	34.39	27.43	74	1.71

HUGH M. SMITH; August 7, 1955; 0223 GCT; 35°55'N, 172°31'W; wind, 110°, force 11 kt; weather, partly cloudy; sea, slight; wire angle, 11°.

53

0	23.28	34.36	5.00	23.39	450	0	23.28	34.36	23.39	450	0.00
12	23.02	34.38	5.02	23.48	442	10	23.06	34.38	23.46	444	0.04
27	18.66	34.39	5.89	24.66	329	20	20.83	34.38	24.09	384	0.09
35	17.27	34.43	6.19	25.03	294	30	18.09	34.40	24.81	316	0.12
44	15.88	34.49	6.34	25.40	258	50	15.25	34.50	25.55	246	0.18
64	14.24	34.47	5.45	25.75	226	75	13.82	34.46	25.83	220	0.24
128	13.18	34.42	5.46	25.93	208	100	13.24	34.44	25.93	211	0.29
250	11.84	34.32	5.51	26.11	191	125	13.16	34.42	25.93	211	0.34
401	9.64	34.16	5.07	26.38	166	150	12.92	34.40	25.97	209	0.39
603	5.74	33.97	3.48	26.79	126	200	12.36	34.36	26.05	202	0.50
804	4.21	34.11	1.50	27.08	99	250	11.84	34.32	26.11	197	0.60
999	3.50	34.26	0.80	27.27	81	300	11.18	34.27	26.19	190	0.69
1203	2.97	34.37	0.56	27.41	68	400	9.66	34.16	26.38	174	0.88
						500	7.65	34.04	26.60	153	1.04
						600	5.79	33.97	26.79	134	1.18
						700	4.80	34.02	26.94	120	1.31
						800	4.23	34.11	27.07	107	1.42
						1000	3.50	34.26	27.27	88	1.62
						1200	2.98	34.37	27.41	76	1.78

HUGH M. SMITH; August 7, 1955; 1428 GCT; 34°20'N, 172°35'W; wind, 130°, force 12 kt; weather, partly cloudy; sea, slight; wire angle, 32°.

55

0	23.84	34.58	4.93	23.39	450	0	23.84	34.58	23.39	450	0.00
11	23.86	34.57	4.91	23.38	451	10	23.86	34.57	23.38	452	0.05
24	19.84	34.49	5.77	24.43	351	20	21.24	34.52	24.08	385	0.09
53	15.48	34.52	6.34	25.51	248	30	18.56	34.49	24.76	321	0.12
91	14.00	34.49	5.34	25.81	220	50	15.72	34.51	25.45	255	0.18
179	12.73	34.43	5.32	26.02	199	75	14.30	34.51	25.76	226	0.24
271	11.53	34.32	5.00	26.17	186	100	13.80	34.48	25.85	219	0.30
365	10.00	34.23	5.02	26.37	166	125	13.32	34.47	25.94	211	0.35
456	8.08	34.11	4.54	26.58	146	150	12.98	34.45	25.99	206	0.40
548	6.37	34.00	3.74	26.74	132	200	12.46	34.41	26.06	201	0.50
730	4.52	34.09	1.83	27.03	104	250	11.81	34.35	26.14	195	0.60
919	3.68	34.27	0.76	27.26	82	300	11.10	34.29	26.23	187	0.70
1110	3.17	34.35	0.40	27.37	72	400	9.27	34.18	26.46	166	0.87
						500	7.22	34.05	26.66	146	1.03
						600	5.69	34.00	26.82	131	1.17
						700	4.72	34.06	26.98	115	1.29
						800	4.13	34.16	27.13	102	1.40
						1000	3.46	34.30	27.31	85	1.59

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
56 HUGH M. SMITH; August 8, 1955; 0121 GCT; 32°36'N, 172°27'W; wind, 230°, force 14 kt; weather, rain; sea, slight; wire angle, 16°.											
0	24.46	34.87	4.87	23.43	447	0	24.46	34.87	23.43	447	0.00
15	24.49	34.88	4.86	23.43	447	10	24.48	34.88	23.43	447	0.04
31	18.97	34.60	5.94	24.74	322	20	22.86	34.79	23.83	409	0.09
38	17.80	34.61	6.11	25.04	293	30	19.34	34.62	24.66	330	0.12
53	16.33	34.61	6.07	25.39	260	50	16.54	34.61	25.34	266	0.18
87	15.20	34.58	5.13	25.62	237	75	15.41	34.59	25.59	243	0.25
197	13.32	34.43	5.05	25.91	211	100	14.90	34.56	25.68	235	0.31
292	11.88	34.33	5.08	26.11	191	125	14.38	34.53	25.76	228	0.37
441	9.18	34.12	4.77	26.42	162	150	13.94	34.50	25.83	222	0.42
589	6.30	33.97	3.54	26.72	133	200	13.27	34.43	25.91	215	0.53
786	4.28	34.09	1.53	27.06	101	250	12.52	34.37	26.02	206	0.64
979	3.54	34.25	0.58	27.26	82	300	11.74	34.32	26.13	197	0.74
1154	3.10	34.36	0.40	27.39	70	400	9.96	34.18	26.34	178	0.92
						500	7.97	34.04	26.55	158	1.09
						600	6.14	33.97	26.74	139	1.24
						700	4.96	34.01	26.92	122	1.37
						800	4.20	34.10	27.07	107	1.48
						1000	3.49	34.26	27.27	88	1.68
58 HUGH M. SMITH; August 8, 1955; 1213 GCT; 31°22'N, 172°25'W; wind, 140°, force 18 kt; weather, showers; sea, moderate; wire angle, 28°.											
0	24.94	35.25	4.80	23.57	433	0	24.94	35.25	23.57	433	0.00
23	24.88	35.21	4.85	23.56	434	10	24.91	35.23	23.56	434	0.04
35	21.27	35.05	5.45	24.48	346	20	24.89	35.22	23.56	435	0.09
50	19.70	34.96	5.52	24.83	313	30	22.80	35.12	24.10	383	0.13
97	16.58	34.71	5.42	25.41	258	50	19.70	34.96	24.83	315	0.20
194	14.50	34.52	5.11	25.73	227	75	17.78	34.82	25.20	280	0.27
289	12.91	34.39	5.05	25.96	206	100	16.47	34.70	25.43	259	0.34
393	11.24	34.31	4.93	26.21	181	125	15.65	34.63	25.56	247	0.40
489	8.96	34.13	4.60	26.46	158	150	15.05	34.58	25.65	239	0.46
555	6.98a)	34.03	3.93	26.68	137	200	14.39	34.51	25.74	231	0.58
730	4.69	34.04	2.28	26.97	109	250	13.53	34.44	25.87	221	0.69
898	3.88	34.19	1.02	27.18	90	300	12.75	34.38	25.98	211	0.80
						400	11.10	34.30	26.23	189	1.00
						500	8.62	34.11	26.50	163	1.18
						600	6.12	34.01	26.78	136	1.33
						700	4.88	34.02	26.93	120	1.45
						800	4.35	34.10	27.06	109	1.57
59 HUGH M. SMITH; August 8-9, 1955; 2309, 2337, 0112 GCT; 30°14'N, 172°43'W; wind, 170°, force 16 kt; weather, partly cloudy; sea, moderate; wire angle, 19°, missing, 07°.											
0	25.16	35.02	4.78	23.33	456	0	25.16	35.02	23.33	456	0.00
14	25.14	35.05	4.75	23.36	453	10	25.15	35.04	23.35	454	0.05
34	21.86	35.08	5.41	24.34	360	20	25.45	35.21	23.37	452	0.09
43	21.30	35.04	5.48	24.46	348	30	22.56	35.12	24.17	377	0.13
62	19.70	35.07	5.43	24.91	305	50	20.76	35.06	24.62	334	0.20
76	18.32	34.88	5.49	25.12	286	75	18.41	34.90	25.11	289	0.28
128	16.95	34.79	5.08	25.38	260	100	17.31	34.78	25.29	272	0.35
200	15.24	34.57	4.92	25.61	239	125	16.95	34.78	25.38	265	
						150	16.41	34.72	25.46	258	0.48
272	13.64	34.42	4.87	25.83	218	200	15.24	34.57	25.61	245	0.61
339	12.50	34.36	4.93	26.02	200	250	14.10	34.46	25.77	231	0.73
426	10.73	34.23	4.72	26.24	178	300	13.15	34.39	25.91	218	0.84
530	8.64	34.13	4.31	26.51	153	400	11.28	34.27	26.18	194	1.05
636	6.67	34.01	-	26.71	134	500	9.23	34.16	26.44	169	1.23
						600	7.31	34.04	26.64	150	1.39
754	4.91	34.08	1.80	26.98	109	700	5.63	34.03	26.86	129	1.53
856	4.17	34.17	0.96	27.13	94	800	4.51	34.12	27.05	109	1.65
965	3.78	34.25	0.59	27.23	84	1000	3.65	34.28	27.27	89	1.85
1073	3.40	34.34	0.46	27.34	74	1200	3.08	34.40	27.42	75	2.02
1291	2.89	34.43	0.73	27.46	63	1500	2.47	34.51	27.56	62	2.23
464 1505	2.46	34.51	0.82	27.56	54						

a) Mean value of 6.93 and 7.04°C.

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 9, 1955; 1440 GCT; 29°57'N, 170°40'W; wind, 080°, force 16 kt; weather, cloudy; sea, moderate; wire angle, 14°.

61

0	25.09	35.22	4.80	23.50	440	0	25.09	35.22	23.50	440	0.00
23	25.10	35.24	4.77	23.51	438	10	25.09	35.23	23.51	440	0.04
40	21.30	35.03	5.62	24.45	349	20	25.10	35.24	23.51	439	0.09
60	18.50	34.86	5.87	25.06	291	30	23.65	35.16	23.89	404	0.13
107	15.69	34.63	5.33	25.55	244	50	19.73	34.94	24.80	317	0.20
214	13.51	34.43	4.92	25.87	214	75	17.25	34.77	25.30	271	0.28
320	11.59	34.31	4.90	26.15	187	100	15.91	34.65	25.52	250	0.34
433	9.70	34.18	4.74	26.38	165	125	15.11	34.58	25.64	239	0.40
540	7.42	34.04	3.83	26.63	142	150	14.45	34.52	25.74	231	0.46
649	5.50	34.04	2.40	26.88	119	200	13.62	34.44	25.85	221	0.57
860	3.95	34.20	0.80	27.18	90	250	12.84	34.38	25.97	211	0.68
1072	3.26	34.38	0.52	27.39	70	300	11.94	34.33	26.10	199	0.78
1275	2.83	34.48	0.65	27.51	59	400	10.27	34.22	26.32	180	0.97
						500	8.28	34.08	26.54	160	1.14
						600	6.29	34.03	26.77	137	1.29
						700	4.95	34.07	26.96	118	1.42
						800	4.20	34.14	27.11	104	1.53
						1000	3.43	34.32	27.33	83	1.72
						1200	2.99	34.44	27.46	71	1.87

HUGH M. SMITH; August 10, 1955; 0524 GCT; 29°53'N, 168°50'W; wind, 090°, force 13 kt; weather, partly cloudy; sea, moderate; wire angle, 04°.

62

0	24.96	35.12	4.82	23.47	443	0	24.96	35.12	23.47	443	0.00
15	24.48	35.16	4.88	23.64	426	10	24.64	35.15	23.58	432	0.04
30	20.41	35.07	5.61	24.73	323	20	23.18	35.13	24.00	392	0.08
50	19.06	35.03	5.58	25.05	292	30	20.41	35.07	24.73	324	0.12
109	16.98	34.88	5.28	25.45	254	50	19.06	35.03	25.05	294	0.18
219	14.83	34.54	5.11	25.67	233	75	17.97	34.97	25.28	273	0.25
328	12.40	34.34	4.98	26.02	200	100	17.18	34.90	25.42	260	0.32
443	10.33	34.19	4.90	26.28	175	125	16.61	34.83	25.49	254	0.38
551	7.96	34.07	4.14	26.57	147	150	16.06	34.75	25.56	248	0.45
661	6.08	34.00	3.31	26.77	128	200	15.13	34.60	25.65	241	0.57
876	3.98	34.22	0.70	27.19	89	250	14.13	34.47	25.77	230	0.69
1091	3.40	34.39	0.61	27.38	71	300	13.02	34.38	25.93	216	0.80
1296	3.32	34.47	0.69	27.45	64	400	11.10	34.24	26.19	193	1.00
						500	9.07	34.12	26.44	169	1.18
						600	7.06	34.03	26.67	147	1.34
						700	5.57	34.02	26.86	128	1.48
						800	4.52	34.12	27.05	109	1.60
						1000	3.52	34.33	27.32	84	1.79
						1200	3.36	34.43	27.42	76	1.95

HUGH M. SMITH; August 10, 1955; 2001 GCT; 29°50'N, 166°45'W; wind, 100°, force 16 kt; weather, partly cloudy; sea, moderate; wire angle, 30°.

64

0	25.28	35.45	4.72	23.62	428	0	25.28	35.45	23.62	428	0.00
26	25.36	35.48	4.76	23.61	429	10	25.31	35.46	23.62	429	0.04
39	22.62	35.34	5.33	24.32	362	20	25.34	35.47	23.61	430	0.09
54	21.40	35.29	5.35	24.62	333	30	24.53	35.44	23.83	409	0.13
88	19.14	35.12	5.26	25.10	288	50	21.62	35.30	24.57	339	0.20
169	16.34	34.77	4.87	25.51	248	75	19.92	35.19	24.94	305	0.28
252	13.96	34.47	4.73	25.81	220	100	18.60	35.06	25.19	282	0.36
340	11.93	34.30	4.77	26.08	194	125	17.61	34.95	25.35	267	0.42
424	10.16	34.14	4.35	26.27	176	150	16.81	34.85	25.46	258	0.49
513	8.52	34.11	3.88	26.52	153	200	15.40	34.65	25.63	243	0.62
687	5.64	34.05	2.13	26.87	119	250	14.01	34.48	25.80	228	0.73
857	4.23	34.20	0.90	27.15	93	300	12.81	34.37	25.96	213	0.84
1034	3.63	34.34	0.59	27.32	76	400	10.65	34.18	26.22	189	1.04
						500	8.75	34.11	26.48	165	1.22
						600	6.96	34.07	26.71	143	1.38
						700	5.49	34.06	26.89	125	1.51
						800	4.58	34.14	27.06	109	1.63
						1000	3.75	34.31	27.29	88	1.82

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
65	HUGH M. SMITH; August 11, 1955; 1027 GCT; 29°59'N, 164°49'W; wind, 110°, force 13 kt; weather, partly cloudy; sea, slight; wire angle, 20°.										
0	24.61	35.15	4.81	23.59	431	0	24.61	35.15	23.59	431	0.00
25	24.62	35.16	4.83	23.60	430	10	24.61	35.15	23.60	431	0.04
33	24.49	35.17	4.87	23.64	426	20	24.62	35.16	23.60	431	0.09
78	17.22	34.76	5.67	25.30	269	30	24.56	35.17	23.62	429	0.13
138	14.86	34.53	5.03	25.66	234	50	22.12	35.05	24.24	371	0.21
222	12.88	34.35	4.92	25.93	208	75	17.80	34.80	25.18	282	0.29
333	11.02	34.26	4.54	26.22	181	100	15.82	34.65	25.54	249	0.36
440	9.09	34.14	4.53	26.45	159	125	14.98	34.56	25.66	238	0.42
553	6.77	34.02	3.53	26.70	135	150	14.51	34.50	25.71	234	0.48
699	4.84	34.07	1.88	26.98	109	200	13.30	34.38	25.88	219	0.59
934	3.84	34.28	0.50	27.25	83	250	12.38	34.32	26.01	207	0.70
1174	3.17	34.45	0.60	27.45	64	300	11.54	34.28	26.14	196	0.80
1462	2.64	34.55	1.23	27.58	52	400	9.83	34.19	26.37	175	0.98
						500	7.83	34.07	26.59	154	1.15
						600	6.03	34.02	26.80	134	1.29
						700	4.83	34.07	26.98	116	1.42
						800	4.23	34.15	27.11	103	1.52
						1000	3.63	34.33	27.32	85	1.71
						1200	3.12	34.46	27.46	71	1.87
66	HUGH M. SMITH; August 11, 1955; 2225 GCT; 31°36'N, 164°41'W; wind, 090°, force 13 kt; weather, partly cloudy; sea, slight; wire angle, 03°.										
0	24.68	35.36	4.84	23.73	418	0	24.68	35.36	23.73	418	0.00
30	24.60	35.39	4.77	23.78	413	10	24.65	35.37	23.75	416	0.04
43	22.44	35.07	5.17	24.17	376	20	24.63	35.38	23.76	415	0.08
52	19.05	34.69	5.78	24.79	317	30	24.60	35.39	23.78	414	0.12
103	15.26	34.56	5.59	25.59	240	50	19.84	34.78	24.65	331	0.20
204	13.18	34.42	5.23	25.93	209	75	15.60	34.42	25.41	260	0.27
304	11.46	34.31	4.93	26.17	185	100	15.09	34.52	25.60	242	0.34
409	9.84	34.18	4.98	26.36	168	125	14.49	34.52	25.73	230	0.40
509	7.84	34.05	4.17	26.57	147	150	13.82	34.48	25.84	220	0.45
613	6.02	34.02	3.10	26.80	126	200	13.19	34.42	25.93	214	0.56
819	4.22	34.14	1.17	27.10	97	250	12.36	34.37	26.05	203	0.66
1018	3.42	34.30	0.45	27.31	78	300	11.52	34.31	26.17	193	0.76
1224	3.04	34.44	0.47	27.46	64	400	9.98	34.19	26.34	177	0.95
						500	8.02	34.06	26.55	158	1.12
						600	6.22	34.02	26.77	136	1.26
						700	5.05	34.05	26.94	120	1.39
						800	4.32	34.12	27.08	107	1.50
						1000	3.46	34.28	27.29	86	1.70
						1200	3.08	34.42	27.44	73	1.86
67	HUGH M. SMITH; August 12, 1955; 1056, 1120 GCT; 32°57'N, 164°58'W; wind, 110°, force 17 kt; weather, cloudy; sea, slight; wire angle, 00°, 00°.										
0	24.36	34.86	4.85	23.45	444	0	24.36	34.86	23.45	444	0.00
25	23.14	34.76	5.17	23.73	417	10	23.87	34.82	23.56	434	0.04
34	19.94	34.60	5.79	24.49	345	20	23.38	34.78	23.68	424	0.09
80	14.96	34.57	5.58	25.67	233	30	21.41	34.67	24.15	378	0.13
						50	16.91	34.52	25.18	281	0.19
134	13.98	34.49	5.32	25.82	219	75	14.95	34.54	25.65	237	0.26
219	12.55	34.39	5.40	26.03	199	100	14.29	34.54	25.79	224	0.32
329	11.08	34.28	5.09	26.22	181	125	13.96	34.50	25.83	221	0.37
444	9.04	34.16	4.90	26.47	157	150	13.70	34.47	25.86	219	0.43
553	6.74	34.01	4.04	26.70	135	200	12.85	34.41	25.98	208	0.53
663	5.08	34.01	2.52	26.90	116	250	12.14	34.36	26.08	200	0.63
878	3.82	34.22	0.74	27.21	87	300	11.47	34.31	26.17	192	0.73
1094	3.18	34.35	0.36	27.37	72	400	9.87	34.21	26.38	174	0.92
1299	2.86	34.50	0.50	27.52	58	500	7.84	34.08	26.59	154	1.08
						600	5.95	34.00	26.79	134	1.22
						700	4.75	34.04	26.96	117	1.35
						800	4.09	34.13	27.11	103	1.46
						1000	3.40	34.30	27.31	85	1.65
						1200	3.01	34.43	27.45	72	1.80

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 12, 1955; 2217 GCT; 34°42'N, 164°40'W; wind, 130°, force 11 kt; weather, partly cloudy; sea, slight; wire angle, 18°.

68

0	24.40	34.82	4.86	23.41	449	0	24.40	34.82	23.41	448	0.00
20	21.54	34.74	5.58	24.17	376	10	22.97	34.78	23.80	412	0.04
34	17.43	34.69	6.17	25.19	279	20	21.54	34.74	24.17	377	0.08
58	15.60	34.60	6.04	25.55	244	30	18.58	34.70	24.92	305	0.12
96	14.10	34.51	5.26	25.81	220	50	15.81	34.63	25.53	248	0.17
192	12.64	34.39	5.35	26.01	200	75	14.79	34.55	25.69	233	0.23
285	11.46	34.34	5.26	26.20	183	100	14.00	34.50	25.82	221	0.29
383	9.78	34.19	5.00	26.38	166	125	13.47	34.46	25.90	214	0.34
478	8.02	34.04	4.73	26.54	150	150	13.06	34.43	25.96	210	0.40
577	6.33	33.97	3.73	26.72	134	200	12.54	34.39	26.03	204	0.50
771	4.42	34.09	1.54	27.04	103	250	11.91	34.36	26.13	196	0.60
964	3.60	34.26	0.47	27.26	82	300	11.22	34.32	26.23	187	0.70
1165	3.12	34.40	0.29	27.42	67	400	9.46	34.16	26.41	171	0.87
						500	7.62	34.02	26.58	155	1.04
						600	6.03	33.97	26.76	137	1.18
						700	4.95	34.02	26.93	121	1.31
						800	4.25	34.12	27.08	106	1.43
						1000	3.51	34.28	27.29	87	1.62

HUGH M. SMITH; August 13, 1955; 0947 GCT; 36°05'N, 164°48'W; wind, 150°, force 16 kt; weather, intermittent drizzle; sea, slight; wire angle, 18°.

69

0	23.84	34.57	4.95	23.38	451	0	23.84	34.57	23.38	451	0.00
14	23.86	34.57	4.97	23.38	451	10	23.85	34.57	23.38	452	0.05
24	23.44	34.52	4.97	23.46	443	20	23.77	34.55	23.39	451	0.09
32	19.10	34.34	5.89	24.51	343	30	20.29	34.39	24.24	370	0.13
61	14.70	34.36	6.47	25.56	243	50	15.18	34.36	25.46	254	0.19
119	12.99	34.43	5.33	25.97	204	75	13.82	34.38	25.76	226	0.25
195	11.95	34.40	5.32	26.15	187	100	12.99	34.41	25.96	208	0.31
290	10.51	34.23	5.13	26.28	175	125	12.88	34.43	26.00	205	
438	7.98	34.07	4.54	26.57	148	150	12.49	34.43	26.07	198	0.41
587	5.48	34.03	3.18	26.87	119	200	11.88	34.39	26.16	191	0.51
784	4.12	34.17	1.18	27.14	94	250	11.13	34.31	26.23	185	0.60
977	3.40	34.31	0.51	27.32	77	300	10.34	34.22	26.30	180	0.69
1178	2.96	34.39	0.32	27.42	67	400	8.64	34.10	26.49	162	0.87
						500	6.86	34.04	26.70	142	1.02
						600	5.35	34.04	26.89	124	1.15
						700	4.53	34.10	27.03	110	1.27
						800	4.04	34.18	27.15	99	1.38
						1000	3.35	34.32	27.33	82	1.56

HUGH M. SMITH; August 13, 1955; 2025 GCT; 37°30'N, 164°48'W; wind, 190°, force 18 kt; weather, cloudy; sea, moderate; wire angle, 15°.

70

0	23.08	34.23	5.06	23.35	454	0	23.08	34.23	23.35	454	0.00
12	22.82	34.19	5.08	23.39	450	10	22.86	34.20	23.39	451	0.05
22	19.27	34.16	6.08	24.33	360	20	20.07	34.16	24.13	381	0.09
40	14.85	34.33	7.06	25.51	248	30	16.98	34.23	24.95	302	0.12
57	13.14	34.27	6.22	25.82	219	50	13.66	34.31	25.74	228	0.17
106	11.88	34.26	5.64	26.06	196	75	12.34	34.25	25.96	207	0.23
212	10.30	34.14	5.82	26.25	178	100	11.88	34.26	26.05	199	0.28
317	9.56	34.14	5.28	26.37	166	125	11.51	34.24	26.11	194	0.33
427	7.76	34.02	4.68	26.56	148	150	11.08	34.21	26.17	189	0.38
638	5.00	33.97	2.50	26.88	118	200	10.42	34.15	26.24	183	0.47
845	3.87	34.17	1.00	27.16	91	250	10.04	34.14	26.29	179	0.56
1055	3.22	34.33	0.50	27.35	74	300	9.68	34.14	26.35	174	0.65
1257	2.82	34.42	0.41	27.46	63	400	8.24	34.05	26.52	160	0.81
						500	6.66	33.98	26.68	144	0.97
						600	5.40	33.96	26.83	130	1.10
						700	4.55	34.02	26.97	116	1.23
						800	4.03	34.12	27.10	104	1.34
						1000	3.35	34.29	27.31	84	1.52
						1200	2.93	34.40	27.43	74	1.68

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δT	Z	T	S	σ_t	δT	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
71 HUGH M. SMITH; August 14, 1955; 0648 GCT; 38°59'N, 164°50'W; wind, 130°, force 21 kt; weather, cloudy; sea, moderate; wire angle, 25°.											
0	23.22	34.29	5.01	23.35	454	0	23.22	34.29	23.35	454	0.00
9	23.22	34.28	5.02	23.35	454	10	22.96	34.28	23.42	448	0.05
23	18.68	34.28	6.37	24.57	337	20	19.83	34.28	24.28	366	0.09
54	13.48	34.35	6.07	25.81	220	30	17.09	34.29	24.97	300	0.12
122	11.75	34.32	5.49	26.13	190	50	13.89	34.34	25.72	230	0.17
200	10.76	34.25	5.54	26.25	178	75	12.19	34.36	26.07	197	0.23
299	9.17	34.07	5.62	26.38	165	100	11.54	34.34	26.19	186	0.27
404	7.81	34.04	4.77	26.57	148	125	11.70	34.32	26.14	192	0.32
504	6.04	33.95	3.89	26.74	131	150	11.35	34.30	26.19	187	0.37
604	4.87	34.00	2.55	26.92	114	200	10.76	34.25	26.25	182	0.46
800	3.99	34.16	1.15	27.14	93	250	9.96	34.16	26.32	176	0.55
997	3.39	34.28	0.64	27.30	78	300	9.16	34.07	26.39	171	0.64
1184	2.92	34.37	0.45	27.41	68	400	7.86	34.04	26.56	155	0.80
						500	6.11	33.95	26.73	138	0.95
						600	4.91	34.00	26.91	121	1.08
						700	4.30	34.08	27.04	109	1.19
						800	3.99	34.16	27.14	100	1.30
						1000	3.38	34.28	27.30	86	1.48
73 HUGH M. SMITH; August 14, 1955; 1852 GCT; 40°28'N, 165°00'W; wind, 150°, force 18 kt; weather, cloudy; sea, moderate; wire angle, 07°.											
0	22.09	34.05	5.20	23.49	440	0	22.09	34.05	23.49	440	0.00
13	21.17	34.04	5.58	23.74	417	10	21.38	34.04	23.68	423	0.04
29	13.29	34.17	6.85	25.71	229	20	17.85	34.10	24.64	332	0.08
52	11.48	34.14	6.04	26.04	198	30	13.09	34.17	25.75	226	0.11
104	10.26	34.12	5.96	26.24	179	50	11.40	34.15	26.06	197	0.15
218	8.70	34.02	5.89	26.42	162	75	10.68	34.13	26.17	187	0.20
325	7.28	33.97	4.95	26.59	146	100	10.28	34.12	26.24	181	0.24
440	5.66	33.96	3.51	26.80	126	125	9.91	34.10	26.29	177	0.29
657	4.18	34.13	1.58	27.10	97	150	9.54	34.08	26.33	173	0.33
871	3.46	34.26	0.77	27.27	81	200	8.89	34.04	26.40	167	0.42
1083	2.96	34.36	0.59	27.40	69	250	8.28	34.00	26.47	161	0.50
1288	2.62	34.43	0.58	27.49	61	300	7.61	33.98	26.55	154	0.58
1536	2.34	34.49	0.66	27.56	54	400	6.20	33.96	26.73	138	0.73
						500	5.11	34.00	26.89	123	0.86
						600	4.43	34.08	27.03	110	0.97
						700	4.00	34.16	27.14	99	1.08
						800	3.65	34.22	27.22	92	1.17
						1000	3.13	34.32	27.36	80	1.34
						1200	2.75	34.40	27.45	71	1.49
						1500	2.38	34.48	27.55	62	1.69
74 HUGH M. SMITH; August 15, 1955; 0526 GCT; 42°03'N, 164°52'W; wind, 160°, force 15 kt; weather, partly cloudy; sea, slight; wire angle, 25°.											
0	21.80	33.95	5.27	23.50	440	0	21.80	33.95	23.50	440	0.00
8	21.22	33.97	5.30	23.67	423	10	20.55	33.96	23.85	407	0.04
17	17.74	33.93	6.73	24.54	341	20	16.81	33.92	24.75	321	0.08
50	10.45	33.89	6.49	26.03	199	30	14.11	33.90	25.34	266	0.11
122	9.02	33.96	6.20	26.32	171	50	10.45	33.89	26.03	200	0.15
200	8.71	34.00	5.92	26.40	164	75	9.97	33.90	26.12	192	0.20
300	7.56	34.01	5.09	26.58	146	100	9.48	33.93	26.22	183	0.25
405	6.07	34.00	3.95	26.78	128	125	9.00	33.96	26.33	173	
507	5.06	34.03	2.74	26.92	114	150	8.86	33.98	26.36	170	0.34
609	4.40	34.07	1.78	27.03	104	200	8.71	34.00	26.40	167	0.42
810	3.69	34.22	0.78	27.22	86	250	8.20	34.01	26.49	160	0.51
1015	3.18	34.34	0.51	27.36	72	300	7.56	34.01	26.58	151	0.58
1216	2.79	34.45	0.49	27.49	61	400	6.14	34.00	26.77	134	0.73
						500	5.12	34.03	26.91	120	0.86
						600	4.45	34.07	27.02	111	0.97
						700	4.02	34.13	27.12	102	1.08
						800	3.71	34.21	27.21	93	1.18
						1000	3.21	34.33	27.35	80	1.35
						1200	2.82	34.44	27.48	69	1.50

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 15, 1955; 1735 GCT; 43°29'N, 165°02'W; wind, 200°, force 13 kt; weather, cloudy; sea, slight; wire angle, 11°.

76

0	20.26	33.33	5.36	23.44	445	0	20.26	33.33	23.44	445	0.00
16	19.72	33.47	5.37	23.69	422	10	19.92	33.42	23.60	431	0.04
27	14.64	33.64	7.51	25.02	294	20	18.42	33.53	24.07	386	0.08
31	11.40	33.68	7.75	25.70	230	30	12.23	33.67	25.53	246	0.12
91	7.91	33.58	6.55	26.19	183	50	9.90	33.65	25.93	209	0.16
138	7.90	33.73	6.45	26.31	172	75	8.56	33.60	26.11	192	0.21
216	7.35	33.69	5.69	26.36	167	100	7.82	33.61	26.23	182	0.26
322	6.12	33.87	4.23	26.67	138	125	7.80	33.68	26.29	176	
437	4.91	33.92	2.95	26.85	121	150	7.85	33.73	26.32	174	0.35
652	4.01	34.10	1.26	27.09	98	200	7.50	33.71	26.35	171	0.43
865	3.40	34.24	0.80	27.26	82	250	6.98	33.74	26.45	162	0.52
1075	2.94	34.32	0.83	27.37	72	300	6.39	33.83	26.60	149	0.60
1278	2.63	34.39	0.74	27.45	64	400	5.26	33.91	26.80	130	0.74
						500	4.54	33.97	26.93	118	0.86
						600	4.13	34.05	27.04	108	0.98
						700	3.85	34.14	27.14	100	1.08
						800	3.56	34.20	27.22	92	1.18
						1000	3.09	34.30	27.34	81	1.35
						1200	2.75	34.36	27.42	74	1.51

HUGH M. SMITH; August 16, 1955; 0449 GCT; 44°57'N, 165°01'W; wind, 230°, force 14 kt; weather, intermittent drizzle; sea, slight; wire angle, 07°.

77

0	17.90	33.03	5.75	23.81	410	0	17.90	33.03	23.81	410	0.00
10	17.50	33.03	5.79	23.91	401	10	17.50	33.03	23.91	401	0.04
49	8.19	33.32	7.06	25.95	206	20	15.36	33.09	24.45	350	0.08
99	6.82	33.34	6.82	26.16	187	30	13.05	33.16	24.98	299	0.11
163	6.60	33.55	6.47	26.35	168	50	8.10	33.32	25.96	206	0.16
197	6.40	33.74	5.72	26.53	152	75	6.67	33.35	26.18	185	0.21
267	5.58	33.84	4.62	26.71	134	100	6.81	33.34	26.16	188	0.26
384	4.69	33.92	2.65	26.88	118	125	6.64	33.40	26.23	181	0.30
494	4.24	34.01	1.71	27.00	107	150	6.58	33.49	26.31	174	0.35
657	3.74	34.15	0.99	27.16	92	200	6.37	33.75	26.54	153	0.43
870	3.21	34.25	0.69	27.29	80	250	5.79	33.84	26.68	140	0.50
1084	2.84	34.34	0.55	27.40	69	300	5.28	33.87	26.77	132	0.57
1289	2.54	34.39	0.55	27.46	63	400	4.61	33.93	26.90	120	0.70
						500	4.22	34.02	27.00	111	0.81
						600	3.90	34.10	27.11	102	0.92
						700	3.62	34.17	27.19	94	1.02
						800	3.37	34.22	27.25	88	1.11
						1000	2.97	34.31	27.36	79	1.28
						1200	2.67	34.37	27.43	72	1.43

HUGH M. SMITH; August 16, 1955; 1844 GCT; 46°29'N, 164°56'W; wind, 260°, force 14 kt; weather, fog; sea, slight; wire angle, 25°.

79

0	14.36	32.70	6.06	24.36	358	0	14.36	32.70	24.36	358	0.00
9	14.27	32.75	6.08	24.42	352	10	14.04	32.76	24.47	348	0.04
24	10.03	32.83	7.00	25.28	270	20	11.34	32.81	25.03	294	0.07
59	5.83	33.03	7.19	26.04	198	30	8.94	32.86	25.48	252	0.09
134	4.83	33.31	6.70	26.38	166	50	6.42	32.98	25.93	209	0.14
182	5.46	33.77	5.33	26.67	138	75	5.06	33.08	26.17	186	0.19
238	4.61	33.87	3.90	26.85	121	100	4.46	33.16	26.30	174	0.24
320	4.17	33.95	2.48	26.96	111	125	4.60	33.27	26.37	168	0.28
401	3.92	34.05	1.79	27.06	101	150	5.05	33.47	26.48	158	0.32
481	3.78	34.09	1.33	27.11	96	200	5.26	33.83	26.74	134	0.39
640	3.48	34.23	0.91	27.25	83	250	4.51	33.88	26.87	122	0.46
801	3.12	34.34	0.75	27.37	72	300	4.22	33.93	26.94	115	0.51
957	2.88	34.36	0.74	27.41	68	400	3.92	34.05	27.06	104	0.62
						500	3.75	34.10	27.12	99	0.73
						600	3.56	34.19	27.21	91	0.82
						700	3.34	34.28	27.30	83	0.91
						800	3.12	34.34	27.37	77	0.99

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
80 HUGH M. SMITH; August 17, 1955; 1043 GCT; 48°07'N, 164°55'W; wind, 350°, force 14 kt; weather, drizzle; sea, slight; wire angle, 22°.											
0	12.33	32.54	6.32	24.64	331	0	12.33	32.54	24.64	331	0.00
13	12.34	32.54	6.36	24.64	331	10	12.34	32.54	24.64	331	0.03
23	11.44	32.56	6.50	24.82	314	20	11.81	32.55	24.75	321	0.07
41	7.12	32.66	7.04	25.58	241	30	9.84	32.60	25.12	286	0.10
80	4.81	32.83	7.11	26.00	202	50	6.10	32.69	25.74	227	0.15
148	4.06	33.64	4.24	26.72	134	75	4.80	32.80	25.98	204	0.20
246	3.92	33.87	2.06	26.92	114	100	4.35	33.06	26.23	180	0.25
349	3.82	34.00	1.12	27.03	104	125	4.05	33.36	26.50	155	0.29
450	3.67	34.09	0.71	27.12	96	150	4.05	33.65	26.73	133	0.33
598	3.38	34.20	0.67	27.23	85	200	3.91	33.84	26.89	118	0.39
796	3.04	34.29	0.59	27.34	75	250	3.92	33.88	26.92	116	0.45
994	2.73	34.38	0.69	27.44	66	300	3.87	33.95	26.99	110	0.51
1188	2.50	34.42	0.75	27.49	61	400	3.75	34.05	27.08	102	0.61
						500	3.57	34.13	27.16	95	0.71
						600	3.38	34.20	27.24	89	0.80
						700	3.20	34.25	27.29	84	0.89
						800	3.03	34.29	27.34	80	0.97
						1000	2.72	34.38	27.44	71	1.12
81 HUGH M. SMITH; August 17, 1955; 2257 GCT; 49°29'N, 165°00'W; wind, 360°, force 9 kt; weather, cloudy; sea, slight; wire angle, 21°.											
0	11.27	32.52	6.56	24.82	314	0	11.27	32.52	24.82	314	0.00
17	11.04	32.50	6.63	24.85	311	10	11.13	32.51	24.84	313	0.03
35	7.72	32.57	7.09	25.43	256	20	10.56	32.51	24.94	303	0.06
60	5.03	32.66	7.28	25.84	217	30	8.74	32.55	25.26	272	0.09
122	3.88	33.21	5.00	26.40	164	50	5.90	32.62	25.71	230	0.14
164	4.24	33.68	2.57	26.73	132	75	4.30	32.76	26.00	202	0.20
191	4.20	33.77	2.05	26.81	125	100	3.72	32.98	26.23	180	0.24
291	3.90	33.93	1.02	26.97	110	125	3.90	33.25	26.43	162	0.29
395	3.74	34.02	0.75	27.06	102	150	4.10	33.54	26.64	142	0.32
593	3.38	34.18	0.57	27.22	86	200	4.17	33.79	26.83	124	0.39
822	2.97	34.25	0.63	27.31	77	250	4.03	33.88	26.92	116	0.45
1129	2.58	34.34	0.66	27.42	67	300	3.88	33.94	26.98	111	0.51
1352	2.36	34.43	0.87	27.51	59	400	3.73	34.02	27.06	104	0.62
						500	3.55	34.11	27.15	96	0.72
						600	3.37	34.18	27.22	90	0.81
						700	3.18	34.22	27.27	86	0.90
						800	3.01	34.25	27.31	83	0.98
						1000	2.73	34.30	27.37	77	1.14
						1200	2.51	34.37	27.45	71	1.29
83 HUGH M. SMITH; August 18, 1955; 1156 GCT; 49°42'N, 162°25'W; wind, 310°, force 12 kt; weather, cloudy; sea, slight; wire angle, 04°.											
0	10.96	32.54	6.61	24.89	-	0	10.96	32.54	24.89	307	0.00
30	7.69	32.59	7.10	25.45	254	10	9.87	32.56	25.09	288	0.03
42	5.78	32.59	7.30	25.70	230	20	8.78	32.57	25.28	271	0.06
79	4.74	32.72	7.22	25.92	209	30	7.69	32.59	25.45	254	0.08
134	4.09	33.62	2.98	26.70	135	50	5.22	32.59	25.77	224	0.13
219	4.00	33.86	1.05	26.90	116	75	4.66	32.69	25.91	211	0.19
329	3.85	33.98	0.60	27.01	106	100	4.40	33.05	26.22	182	0.24
443	3.64	34.09	0.54	27.12	95	125	4.14	33.46	26.57	148	0.28
551	3.44	34.14	0.54	27.18	90	150	4.03	33.72	26.79	128	0.31
759	3.05	34.25	0.55	27.30	78	200	3.97	33.87	26.92	116	0.37
874	2.87	34.25	0.59	27.32	76	250	3.96	33.90	26.94	114	0.43
1090	2.56	34.34	0.70	27.42	67	300	3.89	33.96	26.99	110	0.49
1294	2.37	34.40	0.89	27.48	61	400	3.72	34.05	27.08	102	0.59
						500	3.53	34.12	27.15	96	0.69
						600	3.34	34.17	27.21	91	0.78
						700	3.16	34.22	27.27	85	0.87
						800	2.98	34.25	27.31	82	0.96
						1000	2.68	34.30	27.37	77	1.11
						1200	2.46	34.37	27.45	70	1.26

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

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HUGH M. SMITH; August 19, 1955; 0008 GCT; 49°48'N, 159°40'W; wind, 330°, force 13 kt; weather, cloudy; sea, moderate; wire angle, 08°.

84

0	11.09	32.54	6.63	24.87	309	0	11.09	32.54	24.87	309	0.00
28	8.05	32.69	7.05	25.48	251	10	10.00	32.59	25.10	288	0.03
42	5.26	32.78	7.26	25.91	210	20	8.92	32.65	25.31	267	0.06
70	4.52	32.80	7.24	26.01	201	30	7.63	32.70	25.55	245	0.08
124	3.98	33.34	4.53	26.49	155	50	4.70	32.79	25.98	204	0.13
172	4.26	33.83	2.02	26.85	121	75	4.43	32.84	26.05	198	0.18
256	4.04	33.95	0.91	26.97	110	100	4.09	33.06	26.26	178	0.23
374	3.80	34.09	0.57	27.11	98	125	3.98	33.35	26.50	155	0.27
487	3.63	34.20	0.51	27.21	87	150	4.11	33.62	26.70	136	0.30
655	3.28	34.27	0.48	27.30	78	200	4.23	33.92	26.93	115	0.37
869	2.90	34.36	0.60	27.41	68	250	4.07	33.96	26.97	111	0.42
1080	2.62	34.42	0.80	27.48	62	300	3.94	34.01	27.02	107	0.48
1284	2.39	34.48	0.86	27.55	55	400	3.76	34.12	27.13	97	0.58
						500	3.60	34.21	27.22	90	0.67
						600	3.40	34.25	27.27	85	0.76
						700	3.19	34.29	27.32	81	0.84
						800	3.01	34.33	27.37	76	0.92
						1000	2.72	34.40	27.45	70	1.07
						1200	2.48	34.46	27.52	64	1.20

HUGH M. SMITH; August 20, 1955; 0017 GCT; 48°04'N, 157°24'W; wind, 290°, force 10 kt; weather, intermittent drizzle; sea, slight; wire angle, 15°.

86

0	11.70	32.59	6.46	24.80	316	0	11.70	32.59	24.80	316	0.00
25	9.32	32.67	7.01	25.27	271	10	10.75	32.62	24.99	298	0.03
40	5.62	32.80	7.34	25.88	213	20	9.80	32.65	25.18	280	0.06
65	4.97	32.79	7.28	25.95	206	30	8.04	32.72	25.50	250	0.09
119	3.92	33.35	4.95	26.51	154	50	4.94	32.80	25.96	205	0.13
237	3.90	33.95	1.83	26.98	108	75	4.73	32.87	26.04	198	0.18
355	3.79	34.06	1.08	27.08	99	100	4.22	33.12	26.29	175	0.23
468	3.60	34.18	0.62	27.20	88	125	3.88	33.40	26.55	151	0.27
593	3.41	34.29	0.70	27.30	78	150	3.77	33.57	26.70	136	0.31
718	3.17	34.31	0.72	27.34	74	200	3.74	33.83	26.91	117	0.37
942	2.82	34.42	0.65	27.46	63	250	3.89	33.97	27.00	108	0.42
1164	2.54	34.50	0.70	27.55	55	300	3.85	34.04	27.06	104	0.48
1413	2.29	34.54	0.83	27.60	50	400	3.72	34.11	27.13	98	0.58
						500	3.55	34.21	27.23	89	0.67
						600	3.40	34.29	27.31	82	0.76
						700	3.21	34.31	27.34	80	0.84
						800	3.03	34.35	27.38	76	0.92
						1000	2.74	34.44	27.49	66	1.06
						1200	2.50	34.51	27.56	60	1.19

HUGH M. SMITH; August 19, 1955; 1154 GCT; 49°35'N, 157°22'W; wind, 280°, force 9 kt; weather, missing; sea, slight; wire angle, 08°.

87

0	12.42	32.61	6.35	24.68	328	0	12.42	32.61	24.68	327	0.00
17	11.22	32.63	6.68	24.91	305	10	11.71	32.62	24.82	314	0.03
26	6.77	32.83	7.41	25.76	224	20	9.72	32.70	25.22	276	0.06
40	5.72	32.82	7.30	25.89	212	30	6.07	32.84	25.87	215	0.09
59	5.46	32.87	7.16	25.96	205	50	5.49	32.84	25.93	209	0.13
98	5.16	33.10	6.98	26.18	185	75	5.31	32.95	26.04	198	0.18
199	4.68	33.81	4.35	26.79	127	100	5.15	33.12	26.19	185	0.23
297	4.24	33.91	2.47	26.92	115	125	5.01	33.31	26.36	169	0.27
393	3.96	34.01	1.78	27.03	104	150	4.88	33.49	26.52	154	0.31
592	3.58	34.19	0.88	27.21	87	200	4.68	33.81	26.79	128	0.38
790	3.16	34.32	0.66	27.35	74	250	4.44	33.90	26.89	120	0.44
984	2.84	34.36	0.68	27.41	68	300	4.23	33.91	26.92	117	0.50
1185	2.59	34.43	0.72	27.49	61	400	3.94	34.02	27.03	107	0.62
						500	3.74	34.11	27.13	98	0.72
						600	3.56	34.20	27.21	91	0.81
						700	3.35	34.27	27.29	84	0.90
						800	3.14	34.32	27.35	79	0.98
						1000	2.82	34.37	27.42	73	1.13

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HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
89 HUGH M. SMITH; August 20, 1955; 1351 GCT; 46°28'N, 157°06'W; wind, 310°, force 9 kt; weather, missing; sea, smooth; wire angle, 00°.											
0	14.42	32.77	6.14	24.40	354	0	14.42	32.77	24.40	354	0.00
25	9.72	32.95	6.98	25.42	257	10	12.54	32.84	24.83	313	0.03
35	7.75	33.19	7.35	25.91	210	20	10.66	32.91	25.23	275	0.06
60	6.81	33.15	7.03	26.01	201	30	8.68	33.07	25.68	232	0.09
110	6.30	33.24	6.93	26.15	188	50	6.82	33.22	26.06	196	0.13
220	5.62	33.88	4.74	26.74	132	75	6.55	33.16	26.05	198	0.18
330	4.62	33.96	2.84	26.92	115	100	6.32	33.21	26.12	192	0.23
447	4.23	34.02	1.82	27.01	106	125	6.20	33.33	26.23	182	0.28
556	3.92	34.14	1.21	27.13	94	150	6.04	33.47	26.36	169	0.32
667	3.63	34.22	0.88	27.23	85	200	5.73	33.76	26.63	144	0.40
882	3.17	34.30	0.66	27.33	75	250	5.33	33.93	26.81	127	0.47
1097	2.78	34.40	0.61	27.45	64	300	4.88	33.97	26.89	120	0.53
1303	2.51	34.45	0.71	27.51	58	400	4.34	33.99	26.97	113	0.64
						500	4.07	34.08	27.07	105	0.75
						600	3.80	34.18	27.17	95	0.85
						700	3.55	34.24	27.24	89	0.94
						800	3.33	34.27	27.30	84	1.03
						1000	2.94	34.36	27.40	75	1.19
						1200	2.64	34.42	27.48	68	1.33
90 HUGH M. SMITH; August 21, 1955; 0446 GCT; 44°57'N, 157°26'W; wind, calm; weather, cloudy; sea, smooth; wire angle, 03°.											
0	16.36	33.09	5.89	24.22	371	0	16.36	33.09	24.22	371	0.00
10	16.12	33.06	5.93	24.25	368	10	16.12	33.06	24.25	368	0.04
23	12.67	33.26	6.60	25.13	284	20	13.59	33.21	24.91	306	0.07
33	10.46	33.33	7.78	25.59	240	30	11.06	33.31	25.47	252	0.10
61	8.36	33.37	6.85	25.96	205	50	8.75	33.37	25.90	212	0.14
103	7.50	33.45	6.66	26.15	187	75	7.90	33.39	26.05	198	0.20
205	7.22	33.93	5.53	26.57	148	100	7.51	33.44	26.14	189	0.24
309	5.89	33.93	4.01	26.74	131	125	7.37	33.56	26.25	180	0.29
410	4.80	33.93	2.57	26.87	119	150	7.27	33.68	26.36	170	0.33
614	3.95	34.07	1.17	27.07	100	200	7.22	33.91	26.55	152	0.42
820	3.40	34.23	0.74	27.26	83	250	6.70	33.96	26.66	142	0.49
1018	3.00	34.33	0.59	27.37	71	300	6.02	33.94	26.73	136	0.56
1225	2.68	34.38	0.70	27.44	65	400	4.89	33.93	26.86	124	0.69
						500	4.29	33.98	26.97	114	0.81
						600	3.97	34.06	27.06	106	0.92
						700	3.69	34.14	27.15	98	1.02
						800	3.44	34.22	27.24	90	1.11
						1000	3.03	34.32	27.36	79	1.28
						1200	2.72	34.37	27.43	73	1.43
93 HUGH M. SMITH; August 21, 1955; 1706 GCT; 43°23'N, 157°24'W; wind, 140°, force 6 kt; weather, partly cloudy; sea, smooth; wire angle, 03°.											
0	18.74	33.48	5.39	23.95	397	0	18.74	33.48	23.95	397	0.00
13	18.74	33.51	6.85	23.97	395	10	18.74	33.50	23.96	396	0.04
25	14.25	33.53	7.50	25.02	295	20	16.27	33.52	24.57	338	0.08
40	11.14	33.62	7.01	25.70	230	30	13.00	33.56	25.30	269	0.11
89	8.31	33.58	6.45	26.13	189	50	9.99	33.63	25.91	211	0.15
99	8.09	33.57	6.24	26.16	186	75	8.40	33.62	26.15	188	0.20
203	8.06	33.86	5.98	26.39	165	100	8.08	33.57	26.16	188	0.25
302	6.90	33.91	5.02	26.60	145	125	7.95	33.62	26.22	183	0.30
459	4.96	33.93	3.83	26.85	120	150	7.89	33.68	26.28	178	0.34
613	4.17	34.02	1.83	27.01	106	200	8.04	33.85	26.39	168	0.43
817	3.57	34.16	0.88	27.18	89	250	7.58	33.90	26.49	159	0.51
1016	3.08	34.27	0.50	27.32	77	300	6.93	33.91	26.59	150	0.59
1221	2.74	34.36	0.60	27.42	67	400	5.63	33.92	26.77	133	0.73
						500	4.68	33.95	26.90	121	0.86
						600	4.21	34.01	27.00	112	0.97
						700	3.88	34.08	27.09	104	1.08
						800	3.61	34.15	27.17	97	1.18
						1000	3.11	34.26	27.31	84	1.36
						1200	2.77	34.35	27.41	75	1.52

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 22, 1955; 0258 GCT; 41°56'N, 157°22'W; wind, 150°, force 9 kt; weather, cloudy; sea, slight; wire angle, 11°.

94

0	20.57	33.86	5.59	23.76	415	0	20.57	33.86	23.76	414	0.00
19	16.88	33.75	5.58r	24.60	334	10	18.63	33.80	24.22	371	0.04
32	13.66	33.87	8.00	25.40	258	20	16.64	33.76	24.67	329	0.07
42	11.35	33.82	7.80	25.81	219	30	14.17	33.85	25.29	270	0.10
62	9.70	33.84	6.50	26.12	190	50	10.40	33.82	25.98	204	0.15
104	9.26	33.91	6.50	26.24	178	75	9.34	33.86	26.19	185	0.20
201	8.90	34.00	5.93	26.37	166	100	9.21	33.90	26.25	180	0.25
303	7.62	33.98	4.88	26.55	150	125	9.18	33.94	26.28	177	0.29
401	6.24	33.97	2.58u	26.73	132	150	9.08	33.97	26.32	174	0.33
603	4.48	34.08	1.38	27.03	104	200	8.90	34.00	26.37	170	0.42
804	3.71	34.22	0.77	27.22	86	250	8.35	34.00	26.45	163	0.50
1000	3.21	34.32	0.58	27.35	74	300	7.67	33.98	26.54	155	0.58
1202	2.82	34.40	0.47	27.44	65	400	6.25	33.97	26.73	138	0.73
						500	5.22	34.01	26.89	123	0.86
						600	4.50	34.08	27.02	110	0.98
						700	4.03	34.15	27.13	101	1.08
						800	3.72	34.22	27.21	93	1.18
						1000	3.21	34.32	27.35	81	1.35
						1200	2.82	34.40	27.44	72	1.50

HUGH M. SMITH; August 22, 1955; 1437 GCT; 40°27'N, 157°31'W; wind, 190°, force 10 kt; weather, drizzle; sea, smooth; wire angle, 08°.

96

0	21.68	33.79	5.36	23.41	448	0	21.68	33.79	23.41	448	0.00
20	16.38	33.74	7.16	24.71	324	10	19.03	33.76	24.09	384	0.04
35	13.06	33.79	7.43	25.46	252	20	16.38	33.74	24.71	325	0.08
64	10.58	33.84	6.26	25.97	205	30	14.06	33.77	25.25	274	0.11
128	8.96	33.84	6.15	26.24	179	50	11.39	33.82	25.81	221	0.16
237	8.39	34.04	5.35	26.48	156	75	10.08	33.84	26.06	198	0.21
354	6.67	33.96	4.24	26.67	138	100	9.28	33.84	26.19	186	0.26
470	5.27	33.98	2.83	26.86	120	125	8.97	33.84	26.24	181	0.30
593	4.46	34.09	1.79	27.04	103	150	8.77	33.88	26.30	176	0.35
719	3.94	34.19	1.03	27.17	91	200	8.48	33.97	26.42	166	0.43
943	3.30	34.31	0.51	27.33	76	250	8.22	34.04	26.51	158	0.51
1167	2.84	34.40	0.36	27.44	65	300	7.52	34.01	26.59	150	0.59
1415	2.49	34.47	0.40	27.53	57	400	6.06	33.96	26.74	136	0.73
						500	5.03	34.00	26.90	121	0.86
						600	4.43	34.10	27.04	108	0.98
						700	4.00	34.18	27.15	98	1.08
						800	3.68	34.24	27.24	91	1.17
						1000	3.17	34.34	27.36	79	1.34
						1200	2.79	34.41	27.45	71	1.49

HUGH M. SMITH; August 23, 1955; 0202 GCT; 38°57'N, 157°30'W; wind, 090°, force 7 kt; weather, partly cloudy; sea, smooth; wire angle, 05°.

97

0	23.70	34.11	5.10	23.08	480	0	23.70	34.11	23.08	480	0.00
18	22.12	34.14	5.51	23.55	435	10	22.82	34.13	23.34	455	0.05
30	15.68	34.13	7.34	25.17	280	20	21.01	34.14	23.86	406	0.09
41	14.42	34.13	7.38	25.45	254	30	15.68	34.13	25.17	281	0.12
62	11.98	34.16	6.24	25.96	205	50	13.29	34.14	25.69	232	0.18
106	11.22	34.19	5.75	26.13	190	75	11.44	34.17	26.07	197	0.23
206	9.78	34.11	5.65	26.31	172	100	11.15	34.19	26.14	191	0.28
310	8.72	34.11	5.22	26.49	156	125	10.92	34.18	26.17	188	0.32
409	7.07	34.02	4.41	26.66	139	150	10.54	34.16	26.23	183	0.37
613	4.75	34.02	2.24	26.95	112	200	9.85	34.12	26.31	176	0.46
819	3.82	34.20	0.93	27.19	89	250	9.35	34.11	26.39	170	0.55
1019	3.24	34.31	0.42	27.33	75	300	8.83	34.11	26.47	163	0.63
1225	2.81	34.40	0.32	27.45	65	400	7.23	34.03	26.64	147	0.79
						500	5.86	33.99	26.80	132	0.92
						600	4.86	34.01	26.93	119	1.05
						700	4.25	34.09	27.06	108	1.16
						800	3.87	34.18	27.17	97	1.27
						1000	3.28	34.30	27.32	83	1.45
						1200	2.86	34.39	27.43	73	1.60

473

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
99 HUGH M. SMITH; August 23, 1955; 1356 GCT; 37°26'N, 157°30'W; wind, 120°, force 8 kt; weather, partly cloudy; sea, smooth; wire angle, 05°.											
0	24.09	34.39	4.95	23.17	471	0	24.09	34.39	23.17	471	0.00
12	23.92	34.39	4.96	23.22	466	10	23.95	34.39	23.22	467	0.05
25	22.42	34.28	5.23	23.57	432	20	23.29	34.33	23.36	454	0.09
40	16.18	34.14	6.08	25.06	290	30	20.46	34.23	24.07	386	0.13
84	13.02	34.11	5.75	25.72	228	50	14.40	34.11	25.43	257	0.20
154	11.30	34.11	5.39	26.05	197	75	12.68	34.09	25.77	225	0.26
252	10.23	34.14	5.15	26.26	177	100	12.41	34.11	25.84	220	0.32
352	8.85	34.09	4.72	26.45	159	125	11.72	34.10	25.97	208	0.37
455	6.92	34.02	3.84	26.68	137	150	11.33	34.11	26.04	201	0.42
609	5.04	34.04	2.42	26.93	113	200	10.72	34.13	26.17	190	0.52
812	3.88	34.22	0.90	27.20	88	250	10.25	34.14	26.26	182	0.61
1009	3.26	34.33	0.38	27.35	74	300	9.62	34.12	26.35	174	0.70
1212	2.84	34.42	0.32	27.46	63	400	7.95	34.05	26.56	155	0.86
						500	6.26	34.01	26.76	136	1.01
						600	5.12	34.04	26.92	121	1.14
						700	4.39	34.11	27.06	107	1.25
						800	3.92	34.21	27.19	96	1.35
						1000	3.28	34.33	27.34	81	1.53
						1200	2.86	34.42	27.45	71	1.68
100 HUGH M. SMITH; August 24, 1955; 0030 GCT; 35°56'N, 157°30'W; wind, 100°, force 9 kt; weather, partly cloudy; sea, smooth; wire angle, 02°.											
0	24.47	34.51	4.96	23.15	473	0	24.47	34.51	23.15	473	0.00
18	23.04	34.26	5.16	23.38	451	10	23.68	34.37	23.28	461	0.05
27	21.78	34.31	5.40	23.78	413	20	22.88	34.28	23.44	446	0.09
37	17.60	34.13	6.06	24.72	323	30	20.58	34.26	24.07	387	0.13
62	15.38	34.16	6.04	25.26	272	50	15.68	34.10	25.15	284	0.20
101	13.08	34.13	5.96	25.72	228	75	14.49	34.15	25.45	256	0.27
203	10.84	34.14	5.13	26.15	187	100	13.13	34.13	25.71	231	0.33
307	9.40	34.11	4.75	26.38	166	125	12.27	34.13	25.88	216	0.38
407	7.98	34.04	4.11	26.54	150	150	11.61	34.13	26.01	205	0.44
611	4.91	34.02	2.09	26.93	113	200	10.86	34.14	26.15	192	0.54
816	3.79	34.20	0.74	27.19	88	250	10.14	34.13	26.27	181	0.63
1015	3.18	34.34	0.34	27.36	72	300	9.48	34.11	26.37	173	0.72
1220	2.82	34.44	0.39	27.48	62	400	8.08	34.04	26.53	158	0.88
						500	6.47	34.01	26.73	139	1.03
						600	5.05	34.02	26.91	122	1.16
						700	4.27	34.09	27.06	108	1.28
						800	3.83	34.18	27.18	97	1.38
						1000	3.21	34.33	27.35	80	1.56
						1200	2.86	34.43	27.47	70	1.71
102 HUGH M. SMITH; August 24, 1955; 1207 GCT; 34°28'N, 157°30'W; wind, 100°, force 14 kt; weather, missing; sea, slight; wire angle, 11°.											
0	24.16	34.60	4.92	23.31	458	0	24.16	34.60	23.31	458	0.00
20	24.18	34.59	4.92	23.30	459	10	24.17	34.60	23.31	459	0.05
30	21.62	34.43	5.63	23.91	400	20	24.18	34.59	23.30	460	0.09
54	16.14	34.41	6.25	25.28	270	30	21.62	34.43	23.91	402	0.13
108	13.19	34.31	5.74	25.84	217	50	16.93	34.40	25.09	290	0.20
218	11.64	34.27	5.55	26.11	191	75	14.14	34.37	25.69	233	0.27
325	10.02	34.20	5.14	26.34	169	100	13.17	34.33	25.86	218	0.33
437	8.16	34.09	4.57	26.56	149	125	12.76	34.30	25.92	213	0.38
544	6.25	34.00	3.50	26.75	130	150	12.25	34.28	26.00	205	0.43
654	4.89	34.04	2.17	26.95	112	200	11.69	34.27	26.10	197	0.53
867	3.78	34.21	0.69	27.20	88	250	11.17	34.25	26.18	190	0.63
1080	3.14	34.36	0.27	27.38	70	300	10.41	34.22	26.29	180	0.72
1282	2.86	34.46	0.39	27.49	60	400	8.79	34.13	26.49	163	0.89
						500	7.01	34.03	26.67	145	1.05
						600	5.49	34.01	26.86	127	1.18
						700	4.55	34.07	27.01	112	1.30
						800	4.00	34.15	27.13	101	1.41
						1000	3.33	34.31	27.32	83	1.59
						1200	2.97	34.42	27.45	72	1.75

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ _t	δ _T	Z	T	S	σ _t	δ _T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 24-25, 1955; 2321, 0004 GCT; 32°56'N, 157°29'W; wind, 110°, force 14 kt; weather, partly cloudy; sea, slight; wire angle, 14°, 28°.

103

0	24.22	35.08	4.85	23.66	425	0	24.22	35.08	23.66	425	0.00
11	24.16	35.08	4.86	23.68	423	10	24.17	35.08	23.67	424	0.04
36	22.71	34.97	5.22	24.01	391	20	24.21	35.08	23.66	425	0.08
49	18.73	34.70	5.73	24.88	308	30	23.51	35.03	23.83	410	0.13
61	17.80	34.70	5.69	25.11	286	50	18.60	34.70	24.91	307	0.20
106	14.48	34.40	5.53	25.64	236	75	16.68	34.62	25.32	269	0.27
212	11.83	34.25	5.18	26.06	196	100	14.88	34.45	25.59	243	0.33
318	10.50	34.20	5.08	26.26	177	125	13.69	34.34	25.76	228	0.39
429	8.60	34.09	4.55	26.49	155	150	12.86	34.28	25.89	216	0.45
641	5.10	34.03	2.31	26.92	114	200	11.91	34.24	26.04	203	0.55
						250	11.30	34.23	26.14	194	0.65
808	4.11	34.16	0.93	27.13	94	300	10.70	34.21	26.23	186	0.75
1008	3.38	34.33	0.38	27.34	75	400	9.12	34.12	26.43	168	0.92
1200	2.96	34.42	0.38	27.45	64	500	7.28	34.04	26.65	148	1.08
						600	5.67	34.02	26.84	129	1.22
						700	4.64	34.07	27.00	114	1.34
						800	4.14	34.15	27.12	102	1.45
						1000	3.40	34.32	27.33	83	1.64
						1200	2.96	34.42	27.45	72	1.79

HUGH M. SMITH; August 25, 1955; 1233 GCT; 31°28'N, 157°30'W; wind, 080°, force 16 kt; weather, partly cloudy; sea, moderate; wire angle, 07°.

105

0	24.46	35.48	4.80	23.89	403	0	24.46	35.48	23.89	403	0.00
45	20.20	34.94	5.64	24.68	327	10	23.51	35.36	24.08	385	0.04
59	18.22	34.72	5.74	25.02	294	20	22.57	35.24	24.26	368	0.08
74	17.04	34.68	5.69	25.28	270	30	21.62	35.12	24.43	352	0.11
138	13.81	34.38	5.47	25.77	224	50	19.46	34.85	24.81	317	0.18
218	12.24	34.31	5.27	26.03	199	75	16.97	34.68	25.29	271	0.25
326	10.69	34.23	5.06	26.25	178	100	15.45	34.56	25.55	247	0.32
441	8.67	34.13	4.58	26.51	153	125	14.28	34.44	25.72	232	0.38
551	6.56	34.00	3.53	26.71	134	150	13.48	34.36	25.82	223	0.43
658	5.12	34.02	1.85	26.91	116	200	12.46	34.31	25.99	208	0.54
872	3.91	34.23	0.50	27.21	87	250	11.76	34.29	26.10	198	0.64
1086	3.35	34.41	0.33	27.40	69	300	11.05	34.25	26.20	189	0.74
1291	3.02	34.51	0.68	27.51	58	400	9.42	34.17	26.42	170	0.92
						500	7.51	34.05	26.62	150	1.08
						600	5.83	34.00	26.80	133	1.22
						700	4.77	34.05	26.97	116	1.35
						800	4.16	34.15	27.12	103	1.46
						1000	3.52	34.34	27.33	83	1.64
						1200	3.17	34.47	27.47	71	1.80

HUGH M. SMITH; August 26, 1955; 0015, 0042 GCT; 29°51'N, 157°30'W; wind, 090°, force 18 kt; weather, partly cloudy; sea, moderate; wire angle, 21°, 25°.

106

0	24.50	35.50	4.80	23.89	402	0	24.50	35.50	23.89	402	0.00
18	24.44	35.50	4.80	23.91	401	10	24.47	35.50	23.90	402	0.04
46	24.34	35.50	4.84	23.94	398	20	24.59	35.52	23.88	404	0.08
63	19.78	35.06	5.50	24.88	308	30	24.96	35.56	23.79	413	0.12
99	18.38	35.00	5.29	25.20	278	50	23.31	35.40	24.17	378	0.20
						75	18.70	34.98	25.10	290	0.28
187	14.53	34.45	4.79	25.67	233	100	18.33	34.99	25.20	281	0.36
275	12.14	34.34	4.84	26.07	195	125	17.20	34.84	25.37	266	0.42
371	10.12	34.19	4.64	26.32	171	150	16.10	34.69	25.51	253	0.49
558	6.52	34.01	3.29	26.73	133	200	14.11	34.42	25.73	232	0.61
745	4.57	34.14	1.05	27.06	101	250	12.72	34.35	25.96	211	0.72
930	3.77	34.27	0.38	27.25	83	300	11.58	34.30	26.14	195	0.82
1119	3.30	34.45	0.69	27.44	65	400	9.49	34.15	26.39	172	1.01
1302	2.96	34.50	1.02	27.51	58	500	7.52	34.04	26.61	152	1.17
						600	5.96	34.03	26.81	132	1.31
						700	4.91	34.09	26.99	115	1.43
						800	4.26	34.18	27.13	102	1.54
						1000	3.57	34.34	27.33	83	1.73
						1200	3.15	34.47	27.47	70	1.88

475

HBL

NORPAC

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δT	Z	T	S	σ_t	δT	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

108

HUGH M. SMITH; August 26, 1955; 1241 GCT; 28°27'N, 157°31'W; wind, 080°, force 19 kt; weather, partly cloudy; sea, moderate; wire angle, 25°.

0	24.76	35.49	4.74	23.80	411	0	24.76	35.49	23.80	411	0.00
35	24.78	35.48	4.76	23.79	412	10	24.77	35.49	23.80	411	0.04
49	22.23	35.33	5.34	24.42	352	20	24.77	35.48	23.80	412	0.08
90	19.28	35.08	5.38	25.03	294	30	24.78	35.48	23.79	413	0.12
144	16.83	34.76	5.06	25.39	260	50	22.11	35.32	24.45	351	0.20
199	14.72	34.58	5.06	25.73	227	75	19.91	35.16	24.92	307	0.28
300	11.58	34.26	4.89	26.11	191	100	18.75	35.02	25.11	289	0.36
403	9.72	34.16	4.62	26.36	167	125	17.58	34.86	25.29	273	0.43
502	7.41	34.01	3.94	26.60	144	150	16.58	34.74	25.43	260	0.49
603	5.80a)	33.99	2.79	26.80	125	200	14.68	34.58	25.73	233	0.62
803	4.22	34.20	0.78	27.15	93	250	12.99	34.40	25.95	213	0.73
1001	3.58	34.39	0.40	27.37	72	300	11.58	34.26	26.11	198	0.83
1193	3.11	34.47	0.67	27.47	62	400	9.77	34.16	26.36	176	1.02
						500	7.46	34.01	26.60	153	1.18
						600	5.84	33.99	26.80	133	1.32
						700	4.84	34.07	26.98	116	1.45
						800	4.23	34.20	27.14	100	1.56
						1000	3.58	34.39	27.36	80	1.74

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HUGH M. SMITH; August 26, 1955; 2343 GCT; 26°58'N, 157°27'W; wind, 070°, force 19 kt; weather, partly cloudy; sea, rough; wire angle, 24°.

0	24.48	35.34	4.84	23.78	414	0	24.48	35.34	23.78	413	0.00
24	24.39	35.33	4.84	23.80	412	10	24.44	35.34	23.78	413	0.04
55	23.02	35.29	5.17	24.17	376	20	24.40	35.33	23.79	413	0.08
73	21.92	35.29	5.08	24.48	346	30	24.21	35.32	23.84	408	0.12
100	21.11	35.32	4.91	24.73	323	50	23.31	35.30	24.09	386	0.20
199	18.04	34.93	4.75	25.23	275	75	21.84	35.29	24.50	347	0.29
298	13.78	34.37	4.74	25.77	224	100	21.11	35.32	24.73	326	0.38
500	8.48	34.04	4.18	26.47	157	125	20.40	35.27	24.88	313	0.46
601	6.29	33.96	2.79	26.72	134	150	19.64	35.18	25.01	301	0.54
798	4.46	34.18	0.70	27.11	97	200	18.00	34.92	25.23	281	0.68
995	3.82	34.38	0.78	27.33	75	250	15.85	34.64	25.52	255	0.81
1195	3.39	34.51	1.22	27.48	61	300	13.71	34.36	25.77	231	0.94
						400	10.74	34.12	26.16	195	1.15
						500	8.48	34.04	26.47	166	1.33
						600	6.31	33.96	26.71	142	1.48
						700	5.09	34.04	26.93	121	1.62
						800	4.45	34.18	27.11	104	1.73
						1000	3.81	34.38	27.34	83	1.91

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HUGH M. SMITH; August 27, 1955; 1202 GCT; 25°30'N, 157°33'W; wind, 070°, force 18 kt; weather, partly cloudy; sea, moderate; wire angle, 23°.

0	24.16	35.45	4.81	23.95	396	0	24.16	35.45	23.95	396	0.00
23	24.18	35.42	4.82	23.93	399	10	24.17	35.44	23.94	398	0.04
44	24.20	35.44	4.81	23.94	398	20	24.18	35.42	23.93	399	0.08
72	21.64	35.35	5.29	24.60	335	30	24.28	35.43	23.90	402	0.12
133	19.11	35.15	4.80	25.13	285	50	23.74	35.43	24.06	388	0.20
196	16.72	34.78	4.79	25.43	256	75	21.46	35.34	24.65	333	0.29
295	12.75	34.32	4.74	25.94	208	100	20.21	35.27	24.93	307	0.37
398	10.29	34.21	4.60	26.31	172	125	19.32	35.18	25.10	292	0.44
495	8.00	34.09	3.87	26.58	146	150	18.46	35.06	25.22	281	0.52
593	6.02	34.03	2.18	26.81	125	200	16.55	34.76	25.45	260	0.65
788	4.56	34.29	0.65	27.18	89	250	14.47	34.50	25.72	235	0.77
983	3.86	34.42	0.92	27.36	72	300	12.61	34.31	25.96	213	0.89
1174	3.36	34.50	1.27	27.47	62	400	10.24	34.21	26.31	180	1.08
						500	7.88	34.08	26.59	154	1.25
						600	5.93	34.04	26.82	131	1.39
						700	4.97	34.15	27.03	112	1.51
						800	4.50	34.30	27.20	96	1.62
						1000	3.82	34.43	27.37	80	1.79

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a) Mean value of 5.75 and 5.84°C.

OBSERVED				COMPUTED		INTERPOLATED			COMPUTED		
Z	T	S	O ₂	σ_t	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

HBL

NORPAC

HUGH M. SMITH; August 27, 1955; 2327 GCT; 23°54'N, 157°32'W; wind, 080°, force 22 kt; weather, partly cloudy; sea, rough; wire angle, 20°.

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0	24.48	35.04	4.81	23.55	435	0	24.48	35.04	23.55	435	0.00
32	24.46	35.04	4.80	23.56	434	10	24.47	35.04	23.55	435	0.04
65	24.19	35.24	4.80	23.79	412	20	24.47	35.04	23.55	435	0.09
88	22.39	35.31	5.13	24.36	358	30	24.46	35.04	23.56	436	0.13
128	20.34	35.30	4.96	24.92	305	50	24.50	35.14	23.62	430	0.22
211	16.60	34.74	4.58	25.43	256	75	23.46	35.28	24.03	392	0.32
317	12.23	34.25	4.62	25.98	203	100	21.69	35.32	24.57	341	0.41
428	9.22	34.14	4.24	26.43	161	125	20.47	35.31	24.89	312	0.49
534	6.72	34.05	2.83	26.73	132	150	19.30	35.18	25.10	292	0.57
640	5.32	34.13	1.48	26.97	110	200	17.07	34.83	25.39	266	0.71
848	4.18	34.32	0.85	27.25	83	250	14.88	34.52	25.65	242	0.84
1057	3.57	34.48	0.73	27.44	65	300	12.87	34.31	25.90	218	0.95
1259	3.19	34.55	1.24	27.53	56	400	9.88	34.15	26.33	179	1.15
						500	7.44	34.07	26.65	148	1.31
						600	5.75	34.09	26.89	125	1.45
						700	4.85	34.18	27.07	108	1.57
						800	4.32	34.28	27.20	96	1.67
						1000	3.70	34.44	27.40	77	1.84
						1200	3.30	34.53	27.50	68	1.99

HUGH M. SMITH; August 28, 1955; 1055 GCT; 22°30'N, 157°36'W; wind, 060°, force 14 kt; weather, showers; sea, rough; wire angle, 24°.

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0	24.34	34.86	4.76	23.46	444	0	24.34	34.86	23.46	444	0.00
17	24.36	34.87	4.79	23.46	444	10	24.35	34.87	23.46	444	0.04
34	24.36	34.87	4.79	23.46	444	20	24.36	34.87	23.46	445	0.09
57	24.26	34.92	4.86	23.52	437	30	24.36	34.87	23.46	445	0.13
122	21.72	35.16	4.80	24.44	350	50	24.32	34.90	23.49	442	0.22
194	19.70	35.18	4.59	25.00	297	75	23.69	34.99	23.75	419	0.33
291	13.07	34.31	4.44	25.86	214	100	22.73	35.08	24.09	387	0.43
393	9.32	34.13	4.18	26.41	163	125	21.65	35.17	24.46	352	0.52
490	7.18	34.13	2.00	26.73	132	150	21.03	35.22	24.67	334	0.61
590	6.13	34.22	1.10	26.94	112	200	19.31	35.13	25.06	298	0.77
						250	15.96	34.70	25.54	253	0.90
						300	12.64	34.28	25.92	216	1.02
						400	9.12	34.13	26.43	168	1.21
						500	7.07	34.14	26.75	138	1.37

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